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ABSTRACT

In 1974, the State Board for Community Colleges outlined a series of five projects to be funded with Part B, federal funds for a period of five years. This report provides an overview of each project, outlines the problem, states project objectives, and summarizes preliminary results and future activities. Projects relate to occupational programs at the community college level and include: (1) improving articulation of programs; (2) developing a management information system; (3) implementing an evaluation system; (4) investigating the feasibility of a statewide system of career information for students; (5) improving the quality of orientation, advisement, counseling, career development and placement. Financial data are given and appended. They include: a proposal to study the feasibility of a vocational-technical center in Baltimore County; proceedings of a workshop to formulate a proposal for an integrated curriculum between the colleges and high schools in data processing education; Comprehensive Career Information Systems Committee meetings minutes; data file structures of two program and occupational codes crosswalks; a pilot sample printout of the Program Data Monitoring System; and pilot implementation of the Career Program Evaluation Model. (NHM)

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THE IMPROVEMENT OF OCCUPATIONAL EDUCATION IN MARYLAND

A PROGRESS REPORT

JULY 1, 1974 - JUNE 30, 1975

DIRECTED BY: MARYLAND STATE BOARD FOR COMMUNITY COLLEGES

FUNDING GRANTED BY: DIVISION OF VOCATIONAL-TECHNICAL EDUCATION
MARYLAND STATE DEPARTMENT OF EDUCATION

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ANNAPOLIS, MARYLAND 21404

JUNE 30, 1975

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PREFACE

The relationship between the State Board for Community Colleges and the Division of Vocational-Technical Education of the State Department of Education has evolved over the past few years into a team effort to improve the quality of career education in Maryland. The willingness of the Division to participate in various community colleges projects has strengthened the colleges' occupational offerings.

In May 1974 the staff of the State Board for Community Colleges outlined a series of five projects designed to further improve the quality of postsecondary occupational education in Maryland. On July 26, 1974 the Division agreed to fund these projects with Part B, Federal Funds, for a period of five years.

Each community college is to be commended for the positive spirit demonstrated as progress is made toward implementing the objectives of each project. This report provides an overview of each project, outlines the problem, states the objectives of the project, and summarizes preliminary results and future activities. The State Board intends to issue annual progress reports with a final report to be published at the conclusion of the five-year period.

Alfred C. O'Connell

ALFRED C. O'CONNELL
EXECUTIVE DIRECTOR

PROJECT I. IMPROVING ARTICULATION OF OCCUPATIONAL PROGRAMS AT THE SECONDARY AND POSTSECONDARY LEVELS - A Progress Report - July 1, 1974-June 30, 1975

The Maryland community colleges over the past five years have virtually separated from the local public school systems. This phenomena, in some cases stimulated by expansive community college growth, is evidenced by the fact that currently only one community college in Maryland (Garrett) is still governed by a board which also governs the local public schools. As community colleges have become identified with "higher education," they have correspondingly lost the coordination they formerly had with the local public schools. Formal separation permits the development without mutual planning between the local public schools and the colleges. Thus, students graduating from high school may lose the opportunity of entering a closely articulated high school-community college occupational program. Also, duplication of courses, duplication of content, and loss of time in completing the programs ultimately result in inefficient use of the total resources of the State.

PROJECT OVERVIEW

Statement of the Problem

The *Statewide Master Plan for Community Colleges in Maryland 1973-1983* speaks to this issue as follows:

> Secondary schools in Maryland are recognized nationally for their forward movement in the field of occupational education. Close coordination with local high schools in the development and expansion of occupational offerings will result in an upgrading of occupational education for both the schools and the community colleges. Coordination will also result in more varied levels of entry into community college occupational programs. It is recommended, therefore, that community colleges take positive action to develop coordinated occupational programs with those offered in the secondary schools.

Paragraph 4, page II-86 of the *Maryland State Plan for the Administration of the Vocational-Technical Education Programs Under the Vocational Education Amendments of 1968* requires that secondary and postsecondary institutions "provide and continue to expand a comprehensive system of occupational education serving all persons in need of occupational preparation through utilization of all available resources which offer such preparation."

The problem is that a mechanism has not been developed to insure that occupational programs, where appropriate, developed in the community colleges are logical extensions of those developed in secondary schools.

Objectives

Objectives of this project on a year-by-year basis are:

- Identification of all occupational programs offered by both secondary schools and community colleges for each political subdivision in Maryland; Year 1
- Comparison of these programs using the following as indices of program comparison: program objectives, student admission requirements, student enrollment data, and program outcomes; Year 2
- Information structured into a format for inclusion into the data systems of both the State Board for Community Colleges and the Division of Vocational-Technical Education; Year 2
- Development and implementation of a model curriculum incorporating the concept of grades 11 through 14 which may also provide flexibility for students to enter a program in grade 12 to be completed at the community college; Year 3
- Appropriate recognition by the college of work accomplished by students in secondary school programs;
- Development of in-service training programs for instructional staff at both secondary and postsecondary school levels.

PRELIMINARY RESULTS

The first major aspect of this project, completed during the first year, was the identification of all occupational programs offered by both secondary schools and community colleges for each Maryland political subdivision. This information was then structured into a format for inclusion into the State Board for Community Colleges' and the Division of Vocational-Technical Education's data systems. To date, the State Board has succeeded in establishing a computer based data file containing for each political subdivision both community college occupational program data and high school vocational program data. Specifically, this file is structured as follows:

Political subdivision
  Community college
    HEGIS program number and title
    Enrollment by attendance status, 1971-1973
    Level of formal awards
    Number and type of formal awards, 1971-1973

  High school vocational center
    USOE program number and title
    Enrollment by attendance level, 1971-1973
    Completions, 1971-1974

The establishment of this file will facilitate comparison of program objectives, student admission requirements, student enrollment data, and program outcomes.

In addition to the work completed on the data system, the State Board for Community Colleges also received two proposals from Baltimore County which were funded by the State Board and scheduled for completion during 1975-1976. These two proposals, which are contained as appendices A and B in this progress report, were:

A. A proposal to study the feasibility of opening a vocational-technical center in an accessible location for the three community colleges of Baltimore County;

B. A workshop designed to formulate a proposal for an integrated curriculum between the colleges and high schools in data processing education.

Reports emanating from these studies will be contained in next year's progress report.

FUTURE ACTIVITIES

During the next fiscal year the State Board intends to thoroughly analyze data compiled within the management information system of the State Board for Community Colleges to determine areas of Maryland where greater secondary school-community college articulation is needed. The State Board intends to provide funds for projects similar to that currently being conducted in Baltimore County to improve specific occupational program articulation.

In addition, the State Board will provide computer data information to all vocational-technical schools and community colleges to assist them in making future occupational program decisions.

Brent M. Johnson
Project Director

PROJECT II. DEVELOPING A MANAGEMENT INFORMATION SYSTEM FOR OCCUPATIONAL PROGRAMS - A Progress Report - July 1, 1974-June 30, 1975

This report discusses the status and progress of the State Board for Community Colleges' efforts in developing uniform procedures for translating quantitative representations of community college occupational program activities into USOE data reporting codes. Specifically, the report concentrates on those activities undertaken to establish a "crosswalk" between the United State Office of Education (USOE) Handbook VI coding system and the National Center for Educational Statistics (NCES) Higher Education General Information Survey (HEGIS) discipline classification system.

PROJECT OVERVIEW

Statement of the Problem

In order to effectively evaluate and recommend future directions in occupational programs, the decision maker must have access to timely and accurate data. An investigation into the current state of the art in Maryland reveals a fragmented and uncoordinated flow of data between and among community colleges and various State agencies. The Division of Vocational-Technical Education (DVTE) requires various information from the community colleges to meet federal funding requirements. In far too many instances the college response to the DVTE data requests is "data not available." This same problem has existed for the State Board for Community Colleges (SBCC) since its inception in 1968. Article 77A, Section 8-d(d) of *The Annotated Code of Maryland* charges the State Board for Community Colleges with the responsibility "to establish and maintain a system of information and accounting of community college activities."

Objectives

The primary result of this project will be the development of a State-level community college management information system which will facilitate response to data needs for occupational program information of the Division of Vocational-Technical Education, the State Board for Community Colleges, and other State and federal agencies.

Establishment of this management information system (MIS) will serve to alleviate the burden of dual coding system reporting which now exists at the institutional level.

These desired results are consistent with the State Vocational Plan of FY 1975 wherein the stated goal, objective, and related activities implicitly call for more and better information to continue and expand planning and reporting of vocational education services in the State. (*Maryland State Plan for the Administration of the Vocational-Technical*

Education Programs Under the Vocational Education Amendments of 1968, pages II-86-87.)

Procedures

One of the major procedures that will be developed and implemented under this proposal is a crosswalk between the current USOE program coding structure (Handbook VI) and the HEGIS discipline taxonomy. Since there is not an uniform conversion adopted at the national level, Maryland will build on the works of the state of Florida (*Instructions for Converting Occupational Courses to the Florida Community College Course Numbering System*, Department of Education, Division of Community Colleges, Tallahassee, Florida, January 1972) and the state of California (*Classification of Instructional Disciplines*, California Community Colleges, Sacramento, California, January 1973).

This effort will be conducted by building two data files, one containing the "Florida USOE-HEGIS Match" and the other containing the "California USOE-HEGIS Match." (See Diagram 1, page 6.) Computer analysis will be utilized to determine if the Florida effort and the California effort are compatible in attempting to match USOE to HEGIS. Once this comparison has been made and the inconsistencies are either corrected or deleted, an unitary USOE-HEGIS match will be structured into an interaction computer-based data file for use in crosswalking Maryland community college occupational program activity from HEGIS codes to USOE codes.

Once this crosswalk has been developed and implemented, the State Board will report results of its cost analysis system and its student follow-up study by USOE program code classification. Further, the State Board for Community Colleges will then attempt to match HEGIS discipline codes to Dictionary of Occupational Titles (DOT) codes. (See Diagram 2, page 7.) This match will be accomplished by using the unitary computer-based USOE-HEGIS data file and a computer-based USOE-DOT file structured from *Vocational Education and Occupations*, U. S. Department of Health, Education, and Welfare, Washington, D. C., Government Printing Office, 1969. From this effort an unitary computer-based HEGIS-USOE-DOT data file will be structured. This file will eventually allow the State Board for Community Colleges and the community colleges to utilize manpower projections in planning future occupational programs in the State of Maryland.

After developing these data files, the State Board will then render several of its proposed and ongoing activities in the areas of student follow-up, cost analysis, and occupational program monitoring into USOE reporting codes and formats.

PRELIMINARY RESULTS

In the first year of the MIS project, the SBCC has put priority on the establishment of the HEGIS-USOE-DOT crosswalk. For the most part, this effort has been accomplished. Appendix C is a computer printout of the effort to consolidate and validate the Florida HEGIS-USOE and the California HEGIS-USOE crosswalks. One area of concern in the consolidated

Diagram 1. System Schematic for Creating HEGIS-USOE Crosswalk

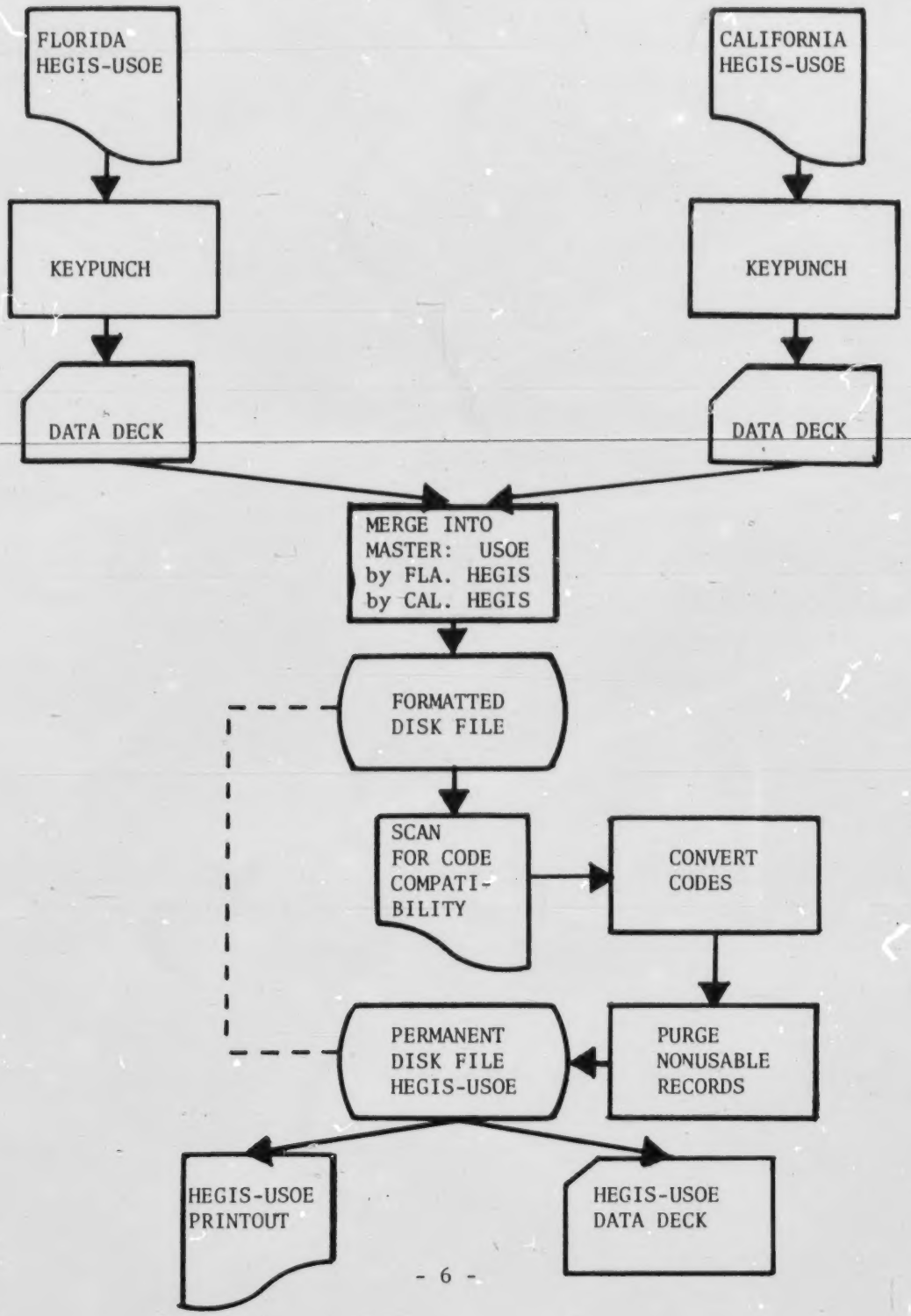
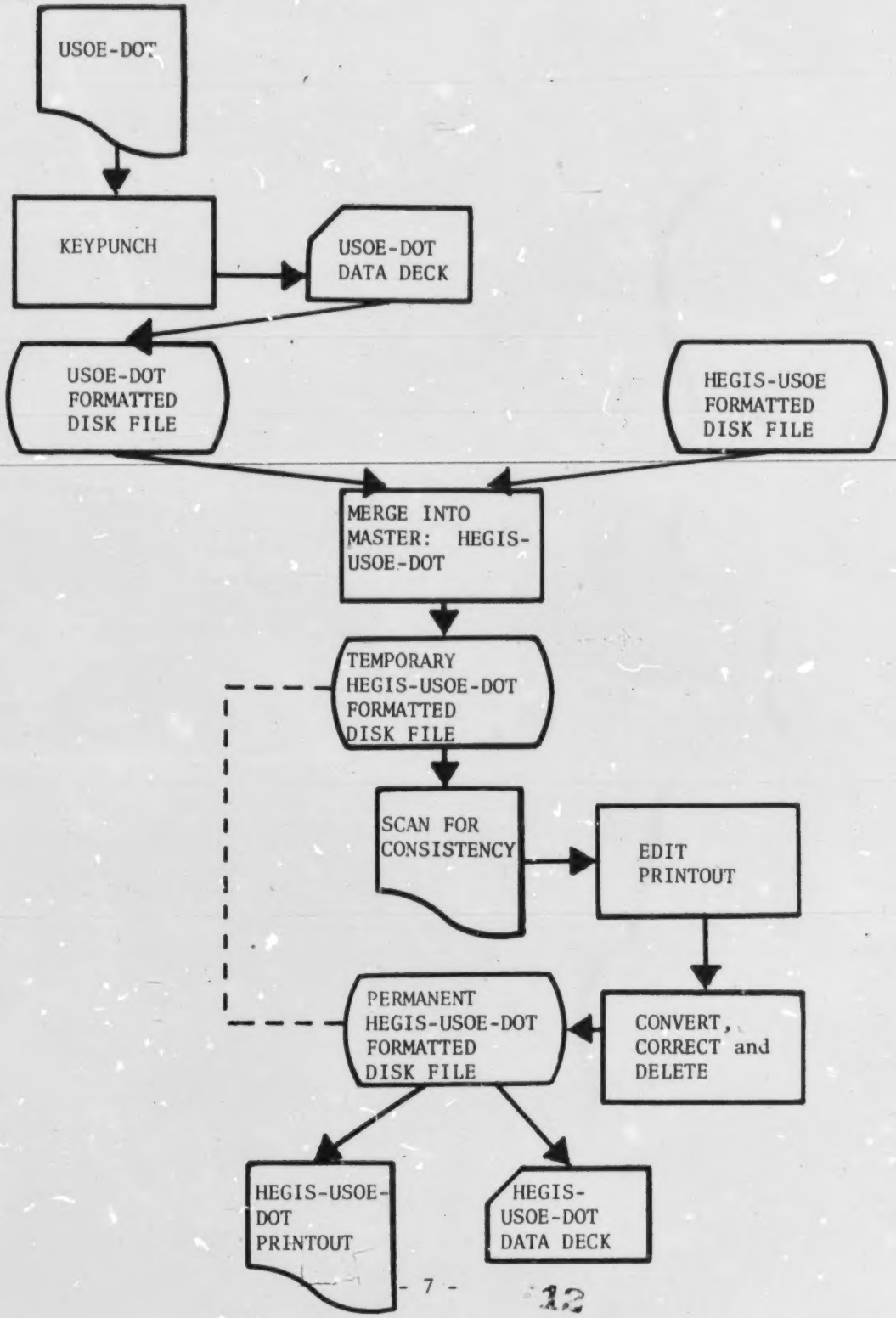


Diagram 2. System Schematic for Creating
HEGIS-USOE-DOT Crosswalk



crosswalk is the use of USOE code category 16.00 00 00 00, technical education. It is felt, both by the DVTE and the SBCC, that this classification is tautological in its use.

The second crosswalk was a straightforward computer based file structuring of work done by the U. S. Office of Education and the Department of Labor in 1969. Appendix D shows the results of the computer match between the HEGIS-USOE file and the USOE-DOT file which yielded the HEGIS-USOE-DOT data file.

These two appendices (C and D) evidence the existence of two interactive computer-based data files which are now the basis for moving between and among USOE data codes, HEGIS data codes, and DOT data codes.

FUTURE ACTIVITIES

Three major activities will be undertaken in fiscal years 1976 and 1977. The first of these efforts will involve an expansion of the "crosswalks" into the manpower planning area. The SBCC will work closely with the Division of Vocational-Technical Education and the Department of State Planning in developing information systems which relate occupational training programs to manpower supply and demand projections.

A second effort will deal with implementing a budget simulation model to be used in a cost analysis mode which will provide an accounting of community college expenditures in both transfer and occupational instruction programs. Currently, the State Board is working with the Florida Community College Inter-Institutional Research Council to acquire the computer system documentation and user's manuals for its *IRC Computer Budget Simulation Model*. Once this system has been acquired, three colleges will participate on a voluntary basis in a pilot project to implement the "model" at the institutional level.

The third effort will involve reporting the results of the 1970 and 1971 student follow-up studies of first-time students in Maryland community colleges by USOE program data codes. This will allow for analysis of student success on a program basis.

Rodney G. Hurley
Project Director

PROJECT III. IMPLEMENTATION OF A SYSTEM FOR THE EVALUATION OF OCCUPATIONAL PROGRAMS IN MARYLAND'S COMMUNITY COLLEGES - A Progress Report - July 1, 1974-June 30, 1975

In 1972 the Assistant State Superintendent of the Division of Vocational-Technical Education and the Executive Director of the State Board for Community Colleges jointly formed a committee charged with the responsibility of developing a mechanism for evaluating occupational programs in the Maryland community colleges. In September 1975 the State Board approved the *Career Program Evaluation Manual* developed by the committee as one mechanism for evaluating career programs in Maryland community colleges.

The evaluation system is based on two primary levels of data. The State Board for Community Colleges will monitor "Level I" data which is quantitative in nature and routinely filed with the State Board. If Level I data suggest that a more in-depth analysis should be undertaken, the State Board will request that the institution conduct a "Level II" study of the particular program(s). The college president will report any action taken in response to a Level II analysis and the rationale for such action to the State Board.

Concurrently with the development of the Evaluation Manual, the State Board and the Division of Vocational-Technical Education developed a *Program Proposal Manual* for all new community college programs. This manual provides a common format for new program submission and identifies elements and information needed by State agencies in the evaluation and review of program proposals.

PROJECT OVERVIEW

Statement of the Problem

The responsibility of occupational program evaluation is clearly indicated in the *Statewide Master Plan for Community Colleges in Maryland 1973-1983* which states:

> As new occupational programs are introduced, the resultant strain upon societal and institutional resources will require a reassessment and evaluation of existing programs. Programs which fail to meet stated objectives must be modified or deleted by local boards of trustees.

Paragraph 3, page II-116 of the *Maryland State Plan for the Administration of the Vocational-Technical Education Programs Under the Vocational Education Amendments of 1968* requires that postsecondary institutions "develop, implement, and maintain an evaluation system that will insure the effectiveness of instructional programs and services."

Occupational programs in Maryland community colleges have not been evaluated using consistent and uniform standards. Program evaluation would be implemented to insure program quality, efficiency, and effectiveness.

Objectives

- Publication and dissemination of the *Career Program Evaluation Manual*; Year 1
- Incorporation of Level I data into the SBCC and the DVTE data systems with resultant reports forwarded to colleges and local boards of trustees; Years 1-5
- Analysis and State level evaluation of Level I data; Years 1-5
- Community college evaluation of selected occupational programs using an approved mechanism and the forwarding of the results of such evaluations to the SBCC and the DVTE; Years 2-5
- State Board for Community Colleges and the Division of Vocational-Technical Education assistance to the colleges in program evaluation to be provided as requested.

PRELIMINARY RESULTS

The *Career Program Evaluation Manual* was published and distributed to all community colleges in Maryland. In addition, the Maryland community college *Program Proposal Manual* was implemented and distributed to all community college program planners.

During the period July 1974 through June 1975, initiation of the design and development of a computerized Program Data Monitoring System was begun. This data system for occupational programs contains the requisite data file structure containing appropriate data codes for "linkages."

Appendix E contains a pilot sample printout of the Program Data Monitoring System which presents information from six data files:

- Student program enrollments;
- Community college program inventory;
- Community college degrees and certificates awarded;
- Multi-level manpower projections;
- Student follow-up study data;
- Community College discipline cost analysis data.

Data contained in this appendix is a sample data for illustrative purposes only.

A conference will be held in Fall 1975 with representatives of each college to discuss this proposed data monitoring system and to seek methods to improve it.

In April 1975 the State Board for Community Colleges granted $930.60 to Harford Community College to serve as a pilot institution in implementing the Career Program Evaluation Model. Appendix F describes the project and details the programs to be examined. A final report on this project will be delivered to the State Board in October 1975. The results of this project will be contained in the next progress report developed by the State Board for Community Colleges.

FUTURE ACTIVITIES

During the next year the State Board for Community Colleges will continue to develop and implement its Program Data Monitoring System. It is expected that this system will be operational at the end of the next fiscal year to allow for quantitative assessment of occupational programs by the State Board for Community Colleges and the individual institutions. The State Board also plans to urge qualitative program evaluations within individual colleges and to provide seed money to stimulate such efforts.

Brent M. Johnson
Project Director

PROJECT IV. INVESTIGATION OF THE FEASIBILITY AND LIMITED DEVELOPMENT OF A STATEWIDE SYSTEM OF CAREER INFORMATION FOR STUDENTS IN MARYLAND'S COMMUNITY COLLEGES - A Progress Report - July 1, 1974-June 30, 1975

As originally conceived, this project was not planned to begin until FY 1977. In 1974, the State Board for Community Colleges proposed to the Division of Vocational-Technical Education that it consider modifications to the approved project which would accelerate and broaden activities in this area in order to capitalize on current interest expressed by the community colleges. In response to this suggestion, a high-level Statewide steering committee was established jointly by the SBCC and the DVTE to examine the possibilities of a unified Statewide effort in career information after consideration of all available systems and modes.

For purposes of clarity, this report capsulizes both the original and suggested modifications to Project IV.

PROJECT OVERVIEW

Statement of the Problem (Original)

Occupational programs in the community colleges are primarily designed for immediate job entry rather than continuation of educational studies. As the credential worth of degrees in general continues to decrease, additional students will be seeking programs which have the capability for immediate and meaningful career opportunities.

Although each community college currently supports placement activities, neither these offices nor placement offices elsewhere nationally have available to them the amount of information with which to aid students in achieving maximal career development. The science of manpower prediction has not been sufficiently developed, nor has an etiology of successful job-search strategies emerged.

The task at hand needs immediate attention along three primary routes:

- Development of a data base on current and projected availability of positions in specific occupations--locally and regionally;
- Design of a crosstabulation of these positions with occupational requirements (suggested major, personal characteristics, interests, etc.) and conditions of employment (location, salary, opportunities for promotion, etc.);
- Establishment of a means of communicating this information directly to students, counselors, and other professional workers.

Once such information is available and communicated, students and counselors can direct their attention to determining the most expeditious way for the student to seek and secure appropriate employment. Such a career information system of accurate and timely data would not only assist the community colleges to provide a pool of trained manpower to meet the diverse needs of the State's economy, but it would also provide information not currently available for the use of academic program planners in the development of program proposals. This project derives from the priorities stated in Section 1a, page II-87 of the *Maryland State Plan for the Administration of the Vocational-Technical Education Programs Under the Vocational Education Amendments of 1968.*

Statement of the Problem (Revised)

While the computer has become a fact of life in modern society, its potential in education has nowhere been adequately tapped. Beginning in the early sixties, educational institutions came to rely heavily on computerized record systems for billing, transcripts, payrolls, and the like. While such use provides efficient service and frees educational manpower for other tasks, it is more central to institutional maintenance and entirely peripheral to the educational process itself.

The challenge of the seventies has been to use the vast resources of technology in computer-assisted instruction and counseling. In terms of automated counseling technology, there has been a severe lag between even existing software packages and knowledge of these innovations by front-line practitioners. The situation is even more critical in terms of state-of-the-art emerging possibilities.

Certain noteworthy programs have been developed to harness computer technology for use in student occupational exploration, vocational decision making, and career development. Examples of the species include Donald Super's work for IBM called Educational and Career Exploration System (ECES), Martin Katz's ETS product known as System of Interactive Guidance and Information (SIGI), and JoAnn Harris-Bowlsbey's Computerized Vocational Information System (CVIS) developed at Willowbrook High School in Illinois.

CVIS appears to be one of the most practical programs to implement in Maryland for a number of reasons. First, the software is in the public domain. Second, the program is capable of a large amount of local modification. Third, the package has the ancillary benefit of providing many administrative uses, including the capability for on-line registration. Most importantly, however, a great amount of work has already been done by Charles County Community College in developing, modifying, and evaluating its use in a Maryland institution.

The efforts of Charles County Community College are commendable; and the best compliment that can be given their work is to provide a mechanism for sharing the insight they have gained with other community colleges and secondary schools in the State.

In recent years, a number of important attempts have been made to articulate programs between grades 12 and 13 and between grades 14 and 15 of a

student's educational experience. Many of these efforts have been successful in developing relatively adequate linkages. The need is particularly essential in terms of certain costly occupational programs.

While the effort to increasingly articulate programs needs to continue, it is important at this point in time to provide a systematic mechanism for transmitting to students what information is available on integrated cross-institutional programs, acceptable course offerings, options for "testing out" (e.g., CLEP, etc.), possible credit loss, and the like. A student cannot make intelligent career or educational decisions without possession of such information.

The CVIS program at Charles County Community College was undertaken as an exemplary project; and it is exemplary in many ways. Charles was the first college of any kind in Maryland to show a solid interest and provide a firm plan for implementing CVIS in their service area. In doing so, they have paved the way for other community colleges in Maryland to enter the field and conceivably avoid many of the expensive "start-up" costs.

Exemplary projects in other places have received criticism for not being capable of or amenable to exportation to other sites. This is definitely not the case at Charles. What is needed is a limited amount of initial funds to make minimal modifications for use at other sites (e.g., in job listings for other regions) and for colleges to start the program. Participating colleges would be responsible for assuming all operating and capital costs after the second year of implementation.

Objectives

To provide the framework for a systematic and well conceived participation by the State of Maryland in the provision of career and manpower information and development for students, a committee was appointed by the State Board for Community Colleges and the Division of Vocational-Technical Education to be broadly representative of public secondary and two-year postsecondary education. Therefore, appointments to the committee included a superintendent of schools, a community college president, a dean of students, high school and college counselors, as well as representatives from the State Employment Service, the DVTE, and the SBCC.

PRELIMINARY RESULTS

The committee held its first meeting on February 28, 1975 at which time the committee received its charge from the chief administrative officers of the two co-sponsoring agencies. The committee also received copies of a survey of existing systems of career information prepared by Arthur M. Kroll of the Educational Testing Service under contract with the DVTE.

The committee decided to undertake as a course of action the examination and, where feasible, the on-site observation of available system capabilities. Thus far, the committee has heard a detailed presentation of the operation of the Southern Maryland Information System and a modification of the Computerized Vocational Information System (CVIS); has viewed the

operation of the System of Interactive Guidance and Information (SIGI) at Educational Testing Service, Princeton, New Jersey; and has observed the preliminary development of Project DISCOVER at Western Maryland College, Westminster.

FUTURE ACTIVITIES

It is anticipated that the committee will examine at least one additional model, the Guidance Information System (GIS-II) developed by Time-Share Corporation of Hartford, Connecticut. Following this, the committee will begin in-depth comparison of all possible options, including Statewide use of a single system (through central or individual site capabilities), regional development, or more localized adoption of relevant approaches.

The recommendations will be framed and transmitted to the appropriate State agencies in time for discussion and possible inclusion in the 1977 State Vocational Education Plan. In order to meet this time line, the committee will need to complete its work and submit its final report early in the Fall of 1975.

The State Board for Community Colleges has absorbed the direct costs of administering committee activities and functions. Copies of the minutes of committee sessions are included in Appendix G of this report.

Stephen D. Millman
Project Director

PROJECT V. IMPROVING THE QUALITY OF ORIENTATION, ADVISEMENT, COUNSELING, CAREER DEVELOPMENT, AND PLACEMENT OF OCCUPATIONAL STUDENTS IN MARYLAND'S COMMUNITY COLLEGES - A Progress Report - July 1, 1974-June 30, 1975

The goals of this project are to be reached through specific attention to the need for professional development among those responsible for non-instructional programs and services for students. Through a clearer awareness of the unique needs of occupational students and a concrete model of the services necessary to complement the formal classroom experience, these personnel can then be of greater assistance to individual students.

PROJECT OVERVIEW

Statement of the Problem

Between 1970 and 1973, the State Board for Community Colleges endorsed 120 new academic programs; of these, 109 were occupational. The rapid development of occupational programs in Maryland community colleges has brought about the need for increased services for the occupational student. In particular, emphasis needs to be placed on the specification of necessary modifications to existing programs of orientation, advisement, counseling, career development and placement services, and the design of new programs for occupational students.

Increased attention and understanding of the relation of education to employment by all members of the academic community is essential. Efforts must be made to develop positive attitudes among college personnel about the life-long value of programs and services which enhance the potential for career satisfaction. The entire educational and career development process must interface with reliable, up-to-date manpower data and projections, such as that which would be available from implementation of the system proposed in Project IV.

Objectives

The State Board for Community Colleges and the Division of Vocational-Technical Education have consistently put a high priority on the creation and sustenance of high quality student services of the type here indicated. The importance of such programs is clearly stated in Section 1a, page II-99 of the *Maryland State Plan for the Administration of the Vocational-Technical Education Programs Under the Vocational Education Amendments of 1968*. Workshops should be initiated to determine the most effective means of making these services more viable for students in occupational programs. Such an endeavor should also stress the development of documents which provide a sound rationale for specific services to students.

The projected outcomes, therefore, are:

- Improved orientation, advisement, counseling, career development, and placement services for all students in Maryland public community colleges; Years 2-5
- Encouragement of contact between personnel from the various campuses who are charged with the responsibility of providing these services; Years 1-5
- Increased professional development and broadened competence of campus personnel concerned with student development; Years 1-5
- Sharing of current sources of career information and framework for information not currently available; Years 1-5
- Exposure of advanced graduate students interested in student development to the concepts of career information and career development; Years 1-5
- Publication and dissemination of a source document presenting the rationale for student development services and programs. Years 1-5

PRELIMINARY RESULTS

During the project's first year, activities commenced in terms of both a source document and planned conferences. In coordination with the deans of students of Maryland community colleges, a number of working sessions were held to develop a comprehensive position paper on college student development.

On September 23 and 24, 1974 the deans of students met at the Donaldson-Brown Conference Center, Port Deposit, Maryland, to begin work on the model for the source document. The cost of the meeting was underwritten by the individual institutions. Fourteen of the sixteen colleges were represented. Preliminary drafts of the model were circulated and a committee was established to continue development. The committee made specific topic assignments to their own membership and to other selected campus personnel. Persons in each of the specific student personnel specialties were asked to comment on their areas of expertise.

The committee met again in Frederick, Maryland, on February 20 and 21, 1975. Documents were reviewed and new assignments made. The SBCC assumed the costs of this meeting.

It is currently anticipated the paper will receive its final review and revisions during the Summer of 1975 and will be published during the Fall of 1975. It will be circulated to appropriate officials. Plans call for the document to be revised periodically through 1980 in order to keep the position current.

To achieve the other objective of the project, the State Board for Community Colleges co-sponsored with the American College Testing Program an educational conference for student development personnel on May 4, 5, and 6, 1975 in Ocean City, Maryland. As part of the program, the State Board invited W. Harold Grant to address the group assembled. Grant, the Director of Student Development Services at Auburn University, has written extensively on student development themes and is currently president of the major professional association, the American College Personnel Association. Eighty staff members from Maryland community colleges attended the workshops.

Grant developed a theoretical framework for analysis of the functioning of the comprehensive community college. His point of departure was from the Latin derivation of the concept "communitas"--to be "as one with." He stressed that the expansive role of community colleges must be conceived in terms of its philosophical unity. This unity must include cognizance of the following:

- The internal college community must function as a well integrated whole;
- There must be a symbiotic relationship between the college and the surrounding community;
- All knowledge must be seen as a whole, with no field of study being viewed as more worthy than any other;
- All students and potential students must be viewed as capable of profiting from college programs and services with no restrictions placed on entrance.

An institution adopting such a stance would need to offer a variety of supportive services to maintain its commitment. Grant suggested alternative means by which such services could be provided.

The American College Testing Program presented a series of sessions on making optimal use of student and institutional data in assisting students to make important educational and career decisions. Using their well-known Midstate model of a hypothetical postsecondary institution, officials from the central office of ACT in Iowa City, Iowa, discussed how test assessment scores and student interest information could be used for college grade prediction, course placement, scheduling, and counseling.

FUTURE ACTIVITIES

As indicated, the source document on student development will be published during the coming academic year. The SBCC staff is currently examining a number of possible formats and topics for the second year conference activities.

One promising possibility includes the combination of a series of one-day "drive-in" workshops culminating in an end-of-the-year two-day conference. A topic already recommended is the provision of counseling and advisement service for the culturally or individually different student. The approach would suggest means of flexibly structuring programs to meet unique needs.

Stephen D. Millman
Project Director

FINANCIAL DATA

Balance July 1, 1974			$ 25,000.00
Expenditures			
Technical and Special Fees	$ 10,423.20		
Travel	572.17		
Contractual Services	10,001.00		
Supplies and Materials	214.56		
Equipment	880.95		
Grants, Subsidies, and Contributions	307.25		
		$ 22,399.13	
Balance June 30, 1975			$ 2,600.87

APPENDIX A

A Proposal to Study the Feasibility
of Opening A Vocational-Technical Center
in an Accessible Location
for the Three Community Colleges of Baltimore County

MARYLAND STATE BOARD FOR COMMUNITY COLLEGES

CONTRACT PROPOSAL

PROJECT TITLE: To Study the Feasibility of Opening a Post-Secondary Vocational Technical Center for the Three Baltimore County Community Colleges.

PROJECT DESCRIPTION:* See Attachment #1

CONTRACT PERIOD: 15 working days TOTAL AMOUNT OF CONTRACT: $2000.00

SOURCE OF FUNDS: State Board for Community Colleges

PROPOSED BUDGET BREAKDOWN:*

15 days x $100/day - Consultant	$1500
Travel, printing, and other expenses	500
Total	$2000

TERMINATION CLAUSE(S):

The responsible agency will maintain and retain all records and documents relating to the performance of this contract for a period of three years after completion of this project and will make such records available for audit and inspection by the State Board for Community Colleges. A final summary of this project will also be made available to the State Board for Community Colleges. The responsible agency will also comply with all State laws and procedures as appropriate, e.g., withholding taxes and Social Security. Submit this form in duplicate to the State Board.

Submitted by: B. A. Barringer — President — B. A. Barringer
Authorized Representative — Title — Signature

Catonsville Community College — April 3, 1975
Community College — Date

Approved: Asst. Executive Director — 7 April 1975
SBCC Authorized Representative — Title — Signature — Date

Disapproved:
SBCC Authorized Representative — Title — Signature — Date

* Use additional sheets if necessary.

27

CATONSVILLE COMMUNITY COLLEGE

CATONSVILLE, MARYLAND 21228

PROPOSAL FOR A GRANT

PURPOSE

To study the feasibility of opening a vocational-technical center in an accessible location for the three community colleges of Baltimore County. This study would entail: (1) the location of land and/or buildings which would house a number (10 or more) of vocational programs to serve the needs of Baltimore County; (2) determine the size and number of buildings; (3) estimate the cost of land and buildings (purchase, lease, or construction), equipment, and administrative personnel required; (4) determine recommended solutions to other problems for a vocational-technical lab center for post-secondary education.

RATIONALE

Vocational-technical programs should be available to students at each of the colleges. Already, some high cost vocational programs requiring specialized facilities have been approved for Catonsville Community College, and more such programs are being developed at all three institutions. Limiting expensive programs to one specific college (i.e., Welding only at Dundalk Community College, Automotive only at Catonsville Community College, and Packaging only at Essex Community College) will immediately cause accessibility problems for students. It is assumed that the County and State are not prepared to support the construction and equipping of two facilities offering the same programs on each side of the County. Duplication of such programs is expensive and probably would not be favored by the Board of

Trustees and the State Board for Community Colleges.

The construction or lease of such a facility would satisfy the collective demands for all three institutions for expensive space and equipment and minimize the accessibility problem for students. Each college could have a share in the expenses and utilization, allowing a particular curriculum to be offered at all three institutions. The specific curriculum design, exclusive of the specialized laboratory center courses, could still be tailored by each institution, since related and general education courses would be offered at each "home" campus.

In addition to the cost considerations in establishing such a lab center, this center would have a number of logistical difficulties and they are listed below.

1. Location: Where is the most available and accessible place?
2. Administration: Who will manage the operation of the lab center? To whom will he/she be responsible? What will be the scope of the responsibilities?
3. Calendar: Each of the colleges now operates on a different academic-year pattern. Will they have to coincide to accommodate the lab center concept?
4. Budget: How will the budget of the lab center be constructed? Separate? Combined? Secretary-Treasurer's budget?
5. Program Admissions: How will student spaces be divided in the selection process? Who will select the students?

6. Graduation Requirements: Each college now has slightly different graduation requirements. Will they all have to be the same for the same program?

If this center can be constructed or leased, there would be no duplication of expensive specialized buildings and equipment, and there would be no need for ancilliary facilities such as a student center, gymnasium, etc. It would also be a center which would be reasonably accessible from all extreme points within the County.

AMOUNT REQUESTED

It is suggested that $2000 would pay for a consultant for approximately fifteen (15) working days plus expenses. If more funds are available, $3000 would produce a more comprehensive and accurate study.

REPORT REQUIRED

A written report will be written by the consultant who will do the study. Copies will be sent to SBCC and the community colleges of Baltimore County.

APPENDIX B

A Workshop Designed to Formulate A Proposal for an Integrated Curriculum between the Colleges and High Schools in Data Processing Education

MARYLAND STATE BOARD FOR COMMUNITY COLLEGES

CONTRACT PROPOSAL

PROJECT TITLE: Articulation of Community College Data Processing Curriculum With High Schools in Baltimore County

PROJECT DESCRIPTION:* See attachment #1

CONTRACT PERIOD: 5 days TOTAL AMOUNT OF CONTRACT: $2000.00

SOURCE OF FUNDS: State Board for Community Colleges

PROPOSED BUDGET BREAKDOWN:* Stipends for 5 representatives at $65/day for 5 days--$1625
(Catonsville Community College, Essex Community College, Eastern Voc-Tech High School, Dundalk Voc-Tech High School & Western Voc-Tech High School)

Supporting Costs--bookkeeping, typing, printing costs-- 375

TOTAL $2000

TERMINATION CLAUSE(S): None

The responsible agency will maintain and retain all records and documents relating to the performance of this contract for a period of three years after completion of this project and will make such records available for audit and inspection by the State Board for Community Colleges. A final summary of this project will also be made available to the State Board for Community Colleges. The responsible agency will also comply with all State laws and procedures as appropriate, e.g., withholding taxes and Social Security. Submit this form in duplicate to the State Board.

Submitted by: B. A. Barringer — President — [signature]
Authorized Representative — Title — Signature

Catonsville Community College — April 7, 1975
Community College — Date

Approved: [signature]
SBCC Authorized Representative — Title — Signature — Date

Disapproved:
SBCC Authorized Representative — Title — Signature — Date

* Use additional sheets if necessary.

ARTICULATION OF COMMUNITY COLLEGE DATA PROCESSING CURRICULUM
WITH HIGH SCHOOLS IN BALTIMORE COUNTY

PROJECT DESCRIPTION:

At a recent meeting called by SBCC and DVTE with representatives from Catonsville Community College, Essex Community College, Eastern Voc-Tech High School, and Western Voc-Tech High School it was decided that teaching members from the Community Colleges and the High Schools in Data Processing should work together for approximately one week during the summer to formulate a proposal for an integrated curriculum between the colleges and the high schools in Data Processing education.

At the meeting it was agreed that there seems to be some lack of coordination in subject matter being taught in Data Processing between the high schools and the community colleges. It was mentioned that few high school data processing students who entered college seem to bypass the beginning courses in the Data Processing curriculum. In some cases it was the fault of the students who did not want to take a written examination and in other cases the student failed the test. It was felt that by having an integrated curriculum, the students would be told of this before entering college and would probably look forward to trying to bypass the courses which may be similar.

This project should also provide a good chance for the faculty from the community colleges and the three high schools in Baltimore County to become acquainted, learn what materials are being taught in each school, and be able to freely call each other when a problem arises or a question needs to be answered. This project should also result in help for the vocational-technical high school graduate since it should provide a much smoother transition from the high school to the college atmosphere. By

receiving recognition for skills and competencies acquired at the high school the amount of program duplication for the student would be minimized.

A report will be written by the participants which would show what was accomplished in the areas of curriculum development. Course outlines for courses which a student should attempt to bypass for credit at the college level would be a part of the report. Specific objectives of what a high school graduate can do in Data Processing should be written for the benefit of the college representatives.

APPENDIX C

Data File Structure

of HEGIS-USOE Program Codes Crosswalk

HEGIS NO.	TITLE	1ST USOE #	2ND USOE #	3RD USOE #
5000	APPLIED ECONOMICS	15060000		
5000	APPLIED COMMUNICATIONS	03060200	05040201	
5000	TECHNICAL REPORTING	14049900		
5002	ACCOUNTING AND COMPUTING	14010000		
5003	FINANCE AND CREDIT	04040000		
5004	APPAREL AND ACCESSORIES	04020000		
5004	AVIATION GROUND OPERATIONS	17040300		
5004	AUTOMOTIVE (DISTRIBUTIVE)	04030000		
5004	INSURANCE	04130000		
5004	HARDWARE, BLDG, MAT, FARM SUP & EQUIP	04090000		
5004	HOME FURNISHINGS	04100000		
5004	MARKETING MANAGEMENT	04000029		
5004	INDUSTRIAL MARKETING	04120000		
5004	GENERAL MERCHANDISE	04080000		
5004	MARKETING	04000010		
5004	FOOD DISTRIBUTION	04060000		
5004	INTERNATIONAL TRADE	04140000		
5004	FOOD SERVICES (DISTRIBUTIVE)	04070000		
5004	FLORISTRY	04050000		
5004	PERSONNEL, TRAINING, AND RELATED	14060000		
5004	PETROLEUM	04160000	16011600	
5004	SUPERVISORY AND ADMINISTRATIVE MANAGEMENT	14080000	03260000	03230000
5004	REAL ESTATE	04170000		
5005	FILING, OFFICE MACHINES, & GEN OFF CLERICAL	14030000		
5005	TYPEWRITING	14090000		
5005	STENOGRAPHIC, SECRETARIAL, AND RELATED	14070000		
5006	BARBERING	17260100		
5006	FABRIC MAINT	17160000		
5006	COSMETOLOGY	17260200		
5006	PERSONAL SERVICES	17269900		
5007	PHOTOGRAPHY	17090000		
5008	BUSINESS INFORMATION COMMUNICATION	14040000		
5008	RADIO/TELEVISION	17150300	05050401	
5010	HOTEL AND LODGING	04120000		
5011	TRANSPORTATION	04190000	14050000	
5012	COMMERCIAL ART	17070000		
5012	ADVERTISING SERVICES	04010000		
5012	LEATHERWORKING	17340000		
5012	GRAPHIC ARTS	17190000		
5012	PAINTING AND DECORATING	17100500		
5012	WOODWORKING	17360000		
5099	BUSINESS LAW	14080000	03090000	
5099	FOREMANSHIP, SUPERVISION, & MGT DVLPT	17170000		
5100	BUSINESS DATA PROCESSING SYSTEMS	14020000	16040000	
5101	SCIENTIFIC DATA PROCESSING	16011700		
5201	COMMUNITY HEALTH AIDE	07090600		
5201	HEALTH SERVICES MANAGEMENT	07990000		
5201	HOME HEALTH AIDE	07030700		
5202	DENTAL ASSISTING	07010100		
5203	DENTAL HYGIENE	07010200	16030100	
5204	DENTAL LABORATORY TECHNOLOGY	07010300		
5205	CYTOLOGY, CYTOTECHNOLOGY	07020100		
5205	HISTOLOGY	07020200		
5205	MEDICAL LABORATORY ASSISTING	07020300	160303	
5205	HEMATOLOGY	07020400		
5207	RADIATION THERAPY	07050200		
5207	RADIOLOGICAL HEALTH TECHNICIAN	07070200		
5207	RADIOLOGIC TECHNOLOGY, X-RAY	07050100	16030400	
5208	NURSING	07030100	16030500	

5209NURSING ASSISTANCE, AIDE	07030300	
5209NURSING	07030100	16030500
5209PRACTICAL NURSING	07030200	
52100CCUPATIONAL THERAPY	07040100	
52110BSTETRICAL TECHNICIAN	07030600	
5211SURGICAL TECHNICIAN, OPERATING	07030500	
52120RTHOPTICS	07060200	
52120PTOMETRIC TECHNICAL SERVICES	07060300	16039900
52120PHTHALMIC DISPENSING	07060100	
5213MEDICAL RECORD TECHNOLOGY	07990000	
5214MEDICAL ASSISTANT	07090400	
5215INHALATION THERAPY	07090300	
5216PSYCHIATRIC AIDE	07030400	
5216MENTAL RETARDATION AIDE	07080200	
5216MENTAL HEALTH TECHNOLOGY	07080100	
5217ELECTROENCEPHALOGRAPH TECHNICIAN	07090100	
5217ELECTROCARDIOGRAPH TECHNICIAN	07090200	16030200
5219PHYSICAL THERAPY TECHNOLOGY	07040200	
5299CENTRAL SUPPLY TECHNICIAN (HEALTH)	07090500	
5299EMERGENCY MEDICAL TECHNOLOGY	07090700	
5299ORTHOTICS	07040400	
5299MORTUARY SCIENCE	07090900	160399
5299NUCLEAR MEDICAL TECHNOLOGY	07050300	
52990RTHOPEDIC ASSISTING	07091000	
5299PROSTHETICS	07040300	
5299SCHOOL HEALTH AIDE	07030800	
5300APPLIED MATHEMATICS	11050000	
5301METALWORKING	17230000	
5302AVIATION	17040000	16010100
5302AVIATION GROUND OPERATIONS	17040300	
5302AIRCRAFT MAINTENANCE	17040100	
5302AIRCRAFT OPERATIONS	17040200	16060100
5303TOOL AND DIE MAKING	17230700	16011302
5304DRAFTING	17130000	
5305CHEMICAL TECHNOLOGY	16010500	
5305PLASTICS	17270000	
5306AUTO BODY AND FENDER	17030100	
5306AUTOMOTIVE SERVICES	17030000	16010400
5306AUTOMOTIVE MECHANICS	17030200	
5307DIESEL MECHANIC	17120000	
5308WELDING AND CUTTING	17230600	
5309CIVIL TECHNOLOGY	16010600	
5309ROADWAY TECHNOLOGY	16010602	
5309STRUCTURAL TECHNOLOGY	16010603	
5310APPLIANCE REPAIR	17020000	
5310ELECTRONICS	17150000	16010800
5310BUSINESS MACHINE MAINT	17060000	
5311ELECTROMECHANICS	16010900	
5312METALLURGY	17240000	16011400
5312PRODUCTION (INDUSTRIAL AND MECHANICAL)	16011303	
5312INDUSTRIAL TECHNOLOGY	16011100	
5313TEXTILE PRODUCTION AND FABRICATION	17330000	
5314INSTRUMENT MAINTENANCE AND REPAIR OCC	17210000	16011200
5315ENGINE REPAIR	17310000	
5315STATIONARY ENERGY SOURCES	17320000	16011301
5315PRODUCTION (INDUSTRIAL AND MECHANICAL)	16011303	
5315MECHANICAL TECHNOLOGY	16011300	
5315MACHINE SHOP	17230200	
5315TOOL AND DIE MAKING	17230700	16011302
5316INDUSTRIAL ATOMIC ENERGY	17200000	16011500

5317AIR CONDITIONING	17010000	16011000	17300000
5317DRYWALL INSTALLATION	17100800		
5317BLUEPRINT READING	17050000		
5317BUILDING CONSTRUCTION AND MAINT	17100000	16010300	
5317CARPENTRY	17100100		
5317CONSTRUCTION EQUIPMENT	17100300		
5317ELECTRICAL CONSTRUCTION	17100200		
5317ROOFING	17101000		
5317INDUSTRIAL ELECTRICITY	17140000	16010700	
5317MASONRY	17100400		
5317PLASTERING	17100600		
5317PLUMBING AND PIPE FITTING	17100700		
5317GLAZING	17100900		
531 7SHEET METAL	17230500		
5317WOODWORKING	17360000		
5399CUSTODIAL SERVICES	17110000		
5400APPLIED SCIENCE (BIOLOGICAL)	13020023		
5400APPLIED SCIENCE (EARTH)	13040019		
5400APPLIED SCIENCE (PHYSICAL)	13030032		
5402ANIMAL SCIENCE	01010100	16020100	
5402AGRICULTURAL RESOURCES	01060000		
5402AGRICULTURAL PRODUCTS	01040000	16020000	
5402FARM BUSINESS MANAGEMENT	01010400		
5402AGRICULTURE PRODUCTION	01010000	16020000	
5402AGRICULTURAL MECHANICS	01030000	16010200	
5402PLANT SCIENCE	01010200	16020400	
5402SUPPLIES AND SERVICES	01020000		
5402ORNAMENTAL HORTICULTURE	01050000		
5403FORESTRY	01070000	16060300	
5403COMMERCIAL FISHERY	17080000		
5404FOOD SERVICES AND MANAGEMENT	09020300	16050400	
5404FOODS AND NUTRITION	09010700		
5404FOOD SERVICE SUPERVISOR (HEALTH)	07090800		
5404QUANTITY FOOD	17290000		
5404UPHOLSTERING	17350000		
5405CLOTHING MANAGEMENT, PRODUCTION, SERVICES	09020200		
5405CLOTHING & TEXTILES	09010300		
5405FAMILY HEALTH	09010500		
5405HOME EQUIPMENT AND FURNISHING	09020400	16050000	
5405INSTITUTIONAL & HOME MANAGEMENT & SPRT SRV	04130000		
5405HOUSING AND HOME FURNISHING	09010900	16050000	
5405CONSUMER EDUCATION	09010400		
5405HOME MANAGEMENT	09010800		
5405CHILD DEVELOPMENT	09010200		
5405CAPE AND GUIDANCE OF CHILDREN	09020100	16050100	
5405HOMEMAKING (COMPREHENSIVE)	09010100		
5405FAMILY RELATIONS	09010600		
5406MARITIME OCCUPATIONS	16060400		
5406MARITIME OCCUPATIONS	17220000	17080100	17080200
5408ENVIRONMENTAL HEALTH ASSISTANT	07070100		
5408SANITATION	16010602		
5408SANITARIAN ASSISTANT	07070300		
5500APPLIED PSYCHOLOGY/SOCIAL STUDIES	15120500		
5501PUBLIC SERVICE OCCUPATIONS (OTHER)	17289900		
5503PERSONNEL, TRAINING, AND RELATED	14060000		
5504LIBRARY AND LEARNING RESOURCES	17289900	16069900	
5505LAW ENFORCEMENT	17280200	16060500	
5506RECREATION AND TOURISM	04180000		
5507FIREFIGHTING	17280100	16060200	

EOF AT LINE 178

APPENDIX D

Data File Structure

of HEGIS-USOE-DOT Program Codes

and Occupational Codes Crosswalk

NOTE: The State Board for Community Colleges has included this printout of the "crosswalk" as evidence of progress made. Since the SBCC plans further refinement of the elements included in the "crosswalk," it is absolutely imperative that any uses made of this information by institution and agencies should be done with caution.

```
HEGIS:  5000      TITLE:  APPLIED ECONOMICS
        NO USOE ENTRY


HEGIS:  5000      TITLE:  APPLIED COMMUNICATIONS
        NO USOE ENTRY


HEGIS:  5000      TITLE:  TECHNICAL REPORTING
 USOE:  14049900  TITLE:  INFORMATION COMMUNICATION OCCUPATIONS, OTHER
        239138010CABLE SUPERVISOR (TEL. & TEL.)SUPER. WK. (CLERICAL & REL.
        239138014CONTRACT CLERK SUPERVISOR (TELSUPER. WK. (CLERICAL & REL.
        239138018FOREMAN, MAIL ROOM (PRINT. & PSUPER. WK. (CLERICAL & REL.
        239138022MANAGER, DELIVERY DEPARTMENT  SUPER. WK. (CLERICAL & REL.
        239138026METER READER, CHIEF (LIGHT, HESUPER. WK. (CLERICAL & REL.
        239138030MORSE SUPERVISOR (TEL. & TEL.)SUPER. WK. (CLERICAL & REL.
        239138046TELEFAX SUPERVISOR (TEL. & TELSUPER. WK. (CLERICAL & REL.
        239228010CONTRACT CLERK TRAINING SUPER BUS. TRAINING
        239368010COUNTER CLERK (TEL. & TEL.)   INFO. GATHER., DISPENS., &
        239368014MAIL-DISTRIBUTION-SCHEME EXAMIINFO. GATHER., DISPENS., &
        239368018MANAGER, TRAFFIC (MOTOR TRANS.INFO. GATHER., DISPENS., &
        239368026WEATHER CLERK (AIR TRANS.)    INFO. GATHER., DISPENS., &
        239382010WIRE-PHOTO OPERATOR, NEWS (PRITYPESET., REPRE. & REL. WK.
        239388010DISPATCHER, MAINTENANCE SERVICCLASSIF., FILING, & REL. WK
        239587010MAILER (PRINT. & PUB.)        SORT., INSPECT., & REL. WK.
        239587014MAILER APPRENTICE (PRINT. & PUSORT., INSPECT., & REL. WK.
        239588014CLERK, DIRECTORY (TEL. & TEL.)ROUTINE CHECK. & RECORD.
        239588018METER READER (LIGHT, HEAT, & PROUTINE CHECK. & RECORD.
        239588026ROUTER (CLERICAL)             ROUTINE CHECK. & RECORD.
        239588030SERVICE OBSERVER (TEL. & TEL.)ROUTINE CHECK. & RECORD.
        239687010TUBE OPERATOR (CLERICAL)      SORT., INSPECT., & REL. WK.
        239688010CLERK, INSPECTION (TEL. & TEL.ROUTINE CHECK. & RECORD.
        239868010CALLER, INDUSTRIAL (ANY IND.) USHER., MESS. SER., & REL.
        249138026SUPERVISOR, SURVEY WORKER     SUPER. WK. (CLERICAL & REL.
        249268014SURVEY WORKER (CLERICAL)      INTERVIEW., INFO. GIV., & R
        249368030CREDIT CLERK (CLERICAL) I     INFO. GATHER., DISPENS., &
        249368050LIBRARY ASSISTANT (LIBRARY)   INFO. GATHER., DISPENS., &
        249368082RESERVATION CLERK (CLERICAL)  FACIL., SER., & EXPED. WK.
        249368094TRACER CLERK (CLERICAL)       FACIL., SER., & EXPED. WK.
        249388014COMPILER (CLERICAL)           CLASSIF., FILING, & REL. WK
        249388034MEDICAL-RECORD CLERK          COMPUT. & REL. RECORD.
        249388038MESSENGER, BANK (BANKING)     CLASSIF., FILING, & REL. WK
        249688010BROADCAST CHECKER (RADIO & TV.ROUTINE CHECK. & RECORD.


HEGIS:  5002      TITLE:  ACCOUNTING AND COMPUTING
 USOE:  14010000  TITLE:  ACCOUNTING AND COMPUTING OCCUPATIONS
        NO DOT ENTRY


HEGIS:  5003      TITLE:  FINANCE AND CREDIT
 USOE:  04040000  TITLE:  FINANCE AND CREDIT
        162158018BROKER-AND-MARKET OPERATOR, GRPURCH. & SALES WK.
        162158022BROKER'S FLOOR REPRESENTATIVE PURCH. & SALES WK.
        186118026MANAGER, FINANCIAL INSTITUTIONADMIN.
        186168010BANK CASHIER (BANKING)        ADMIN.
        186168018FOREIGN-EXCHANGE TRADER (BANKIMANAG. WK.
        186168050RESERVE OFFICER (BANKING)     MANAG. WK.
        186168054SECURITIES TRADER (BANKING)   MANAG. WK.
        186168058SUPERVISOR, CREDIT UNION (FINAMANAG. WK.
        191268010CREDIT ANALYST (BANKING)      INVESTIGAT., PROTECT.,&REL.
        219368010BROKERAGE CLERK (FINAN. INST.)INFO. GATHER.,DISPENS.,& RE
        249368066NEW-ACCOUNTS TELLER (BANKING) INFO. GATHER.,DISPENS.,& RE
        249368086SAFE-DEPOSIT CLERK (BANKING)  INFO. GATHER.,DISPENS.,& RE
        251258010SALESMAN, SECURITIES (FINAN. IDEMON. & SALES WK.
        252258010SALESMAN, FINANCIAL SERVICE (BDEMON. & SALES WK.
        252358022SALESMAN, INVESTMENT AND TAX CDEMON. & SALES WK.
```

HEGIS: 5004 TITLE: APPAREL AND ACCESSORIES
USOE: 04020000 TITLE: APPAREL AND ACCESSORIES
185158010FASHION COORDINATOR (RET. TR.)PURCH. & SALES WK.
223687018SAMPLE GIRL (HOSIERY) SORT., INSPECT.,&REL. WK.
263258010SALESPERSON, ORTHOPEDIC SHOES DEMON. & SALES WK.
263358018SALESMAN, FOOTWEAR (WHOLE. TR.DEMON. & SALES WK.
263358022SALESMAN, MEN'S AND BOYS' CLOTDEMON. & SALES WK.
263358026SALESMAN, UNIFORMS (RET.TR.; WDEMON. & SALES WK.
263358030SALESMAN, WOMEN'S AND GIRLS' ADEMON. & SALES WK.
263358034SALESPERSON, CORESETS (RET. TRDEMON. & SALES WK.
263358038SALESPERSON, FASHION ACCESSORIDEMON. & SALES WK.
263358042SALESPERSON, FURS (RET. TR.) DEMON. & SALES WK.
263358046SALESPERSON, MEN'S FURNISHINGSDEMON. & SALES WK.
263358050SALESPERSON, SHOES (RET. TR.) DEMON. & SALES WK.
263458010SALESPERSON, INFANTS' AND CHILDEMON. & SALES WK.
263458014SALESPERSON, MEN'S AND BOYS' CDEMON. & SALES WK.
263458018SALESPERSON, MILLINERY (RET. TDEMON. & SALES WK.
263458022SALESPERSON, WOMEN'S GARMENTS DEMON. & SALES WK.
264358010SALESMAN, LEATHER GOODS (WHOLEDEMON. & SALES WK.
276358042SALESMAN, TEXTILE DESIGNS (WHODEMON. & SALES WK.
281358034SALESMAN, SHOE LEATHER AND FINDEMON. & SALES WK.
283358010SALESMAN, JEWELRY AND OPTICAL DEMON. & SALES WK.
283358014SALESPERSON, JEWELRY (RET. TR.DEMON. & SALES WK.
299387010FUR-STORAGE CLERK (RET. TR.) INSPECT. & STOCK CHECK.
299887030STOCK GIRL, WOMEN'S APPAREL (RHANDLING

HEGIS: 5004 TITLE: AVIATION GROUND OPERATIONS
USOE: 17040300 TITLE: GROUND OPERATIONS
193168010AIR-TRAFFIC COORDINATOR (GOV.SSCHED., EXPED. & REL. WK.
193168014AIR-TRAFFIC-CONTROL SPECIALISTSCHED., EXPED. & REL. WK.
193168018AIR-TRAFFIC-CONTROL SPECIALISTSCHED., EXPED. & REL. WK.
912368010AIRPLANE-DISPATCH CLERK (AIR TFACIL., SER., & EXPED. WK.
912384010AIRPORT SERVICEMAN (AIR TRANS.INSPECT. & STOCK CHECK.
912788010TRIP FOLLOWER (AIR TRANS.) CLASSIF., FILING, & REL. WK

HEGIS: 5004 TITLE: AUTOMOTIVE (DISTRIBUTIVE)
USOE: 04030000 TITLE: AUTOMOTIVE
163158010SPARE-PARTS FIELD REPRESENTATIPURCH. & SALES WK.
185168050MANAGER, PARTS (RET. TR.; WHOLMANAG. WK.
185168066SERVICE MANAGER (AUTO. SER.) MANAG. WK.
187168142MANAGER, STORAGE GARAGE (AUTO.MANAG. WK.
187168154MANAGER, VEHICLE LEASING AND RMANAG. WK.
187288010SERVICE-MANAGEMENT SPECIALIST INDUST. ENGR. & REL. WK.
191168018SERVICE REPRESENTATIVE (AUTO. INVESTIGAT., PROTECT.,&REL.
280358014SALESMAN, AUTOMOBILE (RET. TR.DEMON. & SALES WK.
280358018SALESMAN, AUTOMOBILE PARTS (WHDEMON. & SALES WK.
280358026SALESMAN, HOUSE TRAILERS (RET.DEMON. & SALES WK.
280358034SALESMAN, MOTOR VEHICLES AND SDEMON. & SALES WK.
280458010SALESPERSON, AUTOMOBILE ACCESSDEMON. & SALES WK.
289358046SALESPERSON, PARTS (RET. TR.; DEMON. & SALES WK.
296368010CAR LOCATOR (RET. TR.) FACIL., SER., & EXPED. WK.
299287010APPRAISER, AUTOMOBILE (RET. TRAPPRAIS. & INVESTIGAT. WK.
620281022AUTOMOBILE-REPAIR-SERVICE SALECRAFTS & REL. WK.
915137010CAR-WASH SUPERVISOR (AUTO. SERSUPER. WK.(FARM.,MFG.,ETC.)
915878014PARKING-LOT ATTENDANT (AUTO SEMISC. PER. SER.(FOOD SER.&R
919368010DISPATCHER, CAR RENTAL (AUTO. FACIL., SER., & EXPED. WK.
919478010CAR-RENTAL CLERK (AUTO. SER.) CUSTOMER SER. WK., N.E.C.

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HEGIS:  5004      TITLE:  INSURANCE
 USOE:  04130000  TITLE:  INSURANCE
        166168034SPECIAL AGENT (INSURANCE)      MANAG. WK.
        168268022INSURANCE EXAMINER (GOV. SER.)INVESTIGAT., PROTECT. & REL
        169168034ESTATE PLANNER (INSURANCE)     CONSULT. & BUS. WK.
        169188014UNDERWRITER (INSURANCE)        ACCOUNT., AUDIT. & REL. WK.
        169268018HOSPITAL-INSURANCE REPRESENTATINTERVIEW., INFO. GIV., & R
        186118030MANAGER, INSURANCE (ANY IND.) ADMIN.
        186168030MANAGER, INSURANCE OFFICE (INSMANAG. WK.
        191268018INVESTIGATOR (INSURANCE) I     INVESTIGAT., PROTECT. & REL
        239368022PLACER (INSURANCE)             INFO. GATHER., DISPENS. & R
        241168010CLAIM ADJUSTER (INSURANCE)     INVESTIGAT., PROTECT. & REL
        249268010CLAIM EXAMINER (INSURANCE) II INVESTIGAT., PROTECT., & RE
        250258010LIFE UNDERWRITER (INSURANCE) IDEMON. & SALES WK.
        250258014SALESMAN, INSURANCE (INSURANCEDEMON. & SALES WK.


HEGIS:  5004      TITLE:  HARDWARE, BLDG, MAT, FARM SUP & EQUIP
 USOE:  04090000  TITLE:  HARDWARE, BUILDING MATERIALS, FARM AND GARDEN SUPPLIES AND EQ
        187168134MANAGER, SERVICE DEPT. (WHOLE.MANAG. WK.
        249368018CONTRACT CLERK (LIGHT, HEAT & INFO. GATHER., DISPENS. & R
        276358010SALESMAN, BUILDING AND CONSTRUDEMON. & SALES WK.
        276358014SALESMAN, CONSTRUCTION MACHINEDEMON. & SALES WK.
        276358018SALESMAN, HARDWARE SUPPLIES (WDEMON. & SALES WK.
        276358058SALESPERSON, GENERAL HARDWARE DEMON. & SALES WK.
        277358010SALESMAN, CATTLE AND POULTRY FDEMON. & SALES WK.
        277358014SALESMAN, DAIRY SUPPLIES (WHOLDEMON. & SALES WK.
        277358018SALESMAN, FARM AND GARDEN EQUIDEMON. & SALES WK.
        277358022SALESMAN, POULTRY EQUIPMENT ANDEMON. & SALES WK.
        277358026SALESMAN, TRACTOR AND FARM IMPDEMON. & SALES WK.
        277358030SALESPERSON, LAWN AND GARDEN EDEMON. & SALES WK.
        929137026YARDMAN (RET. TR.) I           SUPER. WK. (FARM., MFG. ETC


HEGIS:  5004      TITLE:  HOME FURNISHINGS
 USOE:  04100000  TITLE:  HOME FURNISHINGS
        162158114SECOND-HAND FURNITURE DEALER (PURCH. & SALES WK.
        187168010APPLIANCE-SERVICE SUPERVISOR (APPRAIS. & INVESTIGAT. WK.
        191287010APPRAISER, FURNITURE (RET. TR.APPRAIS. & INVESTIGAT. WK.
        256258010SALESMAN, UPHOLSTERY AND FURNIDEMON. & SALES WK.
        274358010FLOOR-COVERINGS ESTIMATOR (RETDEMON. & SALES WK.
        274358014SALESMAN, CUSTOM DRAPERY (RET.DEMON. & SALES WK.
        274358018SALESMAN, FLOOR COVERINGS (RETDEMON. & SALES WK.
        274358022SALESMAN, HOUSEFURNISHINGS (WHDEMON. & SALES WK.
        274358030SALESPERSON, CURTAIN AND DRAPEDEMON. & SALES WK.
        274358034SALESPERSON, FURNITURE (RET. TDEMON. & SALES WK.
        278258018SALESPERSON, HI-FI (RET. TR.) DEMON. & SALES WK.
        278358010SALESMAN, GAS-OR-ELECTRIC APPLDEMON. & SALES WK.
        278358014SALESMAN, HOUSEHOLD EQUIPMENT DEMON. & SALES WK.
        278358018SALESMAN, RADIO AND TELEVISIONDEMON. & SALES WK.
        278358022SALESMAN, SEWING MACHINE (RET.DEMON. & SALES WK.
        278358030SALESPERSON, TELEVISION AND APDEMON. & SALES WK.
        299488010DRAPERY AND UPHOLSTERY ESTIMATCOMPUT. & REL. RECORD.
        299686014FURNITURE INSPECTOR (RET. TR.)SORT., INSPECT. & REL. WK.


HEGIS:  5004      TITLE:  MARKETING MANAGEMENT
        NO USOE ENTRY
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HEGIS: 5004 TITLE: INDUSTRIAL MARKETING
USOE: 04120000 TITLE: INDUSTRIAL MARKETING

163118026MANAGER, SALES (ANY IND.) ADMIN.
163168018MANAGER, UTILITY SALES AND SERMANAG. WK.
183118010MANAGER, BRANCH (ANY IND.) ADMIN.
189118018MANAGER, INDUSTRIAL ORGANIZATIADMIN.
189268014MANAGER, TECHNICAL SERVICE (PRCONSULT. & BUS. WK.
252158010SALESMAN, INDUSTRIAL RELATIONSPURCH. & SALES WK.
252358014SALESMAN, BUSINESS SERVICES DEMON. & SALES WK.
253358014SALESMAN, PRINTING (PRINT. & PDEMON. & SALES WK.
259358022SALESMAN, WEATHER FORECASTING DEMON. & SALES WK.
263358010SALESMAN, CANVAS PRODUCTS (WHODEMON. & SALES WK.
265358014SALESMAN, PAPER & PAPER PRODUCDEMON. & SALES WK.
265358018SALESMAN, PRESSURE-SENSITIVE TDEMON. & SALES WK.
266258010SALESMAN, CHEMICALS AND DRUGS DEMON. & SALES WK.
268358010SALESMAN, PLASTIC PRODUCTS (WHDEMON. & SALES WK.
270258010SALESMAN, RUBBER GOODS (WHOLE.DEMON. & SALES WK.
271358010SALESMAN, ABRASIVES (WHOLE. TRDEMON. & SALES WK.
273258010SALESMAN, FOUNDRY AND MACHINE DEMON. & SALES WK.
273358010SALESMAN, METALS (WHOLE. TR.) DEMON. & SALES WK.
273358014SALESMAN, WIRE ROPE (WHOLE. TRDEMON. & SALES WK.
276158010SALESMAN, MACHINERY (WHOLE. TRPURCH. & SALES WK.
276358022SALESMAN, LUBRICATING EQUIPMENDEMON. & SALES WK.
276358034SALESMAN, RADIOGRAPHIC INSPECTDEMON. & SALES WK.
276358038SALESMAN, SAFETY EQUIPMENT (WHDEMON. & SALES WK.
276358046SALESMAN, TEXTILE MACHINERY (WDEMON. & SALES WK.
276358050SALESMAN, ULTRASONIC EQUIPMENTDEMON. & SALES WK.
276358054SALESMAN, WELDING EQUIPMENT (WDEMON. & SALES WK.
278258014SALESMAN, COMMUNICATION EQUIPMDEMON. & SALES WK.
281158010SALESMAN, PRINTING SUPPLIES (WPURCH. & SALES WK.
281358014SALESMAN, BOTTLES AND BOTTLINGDEMON. & SALES WK.
281358018SALESMAN, CHURCH FURNITURE ANDDEMON. & SALES WK.
281358022SALESMAN, CORDAGE (WHOLE. TR.)DEMON. & SALES WK.
281358026SALESMAN, OFFICE MACHINES (RETDEMON. & SALES WK.
281358030SALESMAN, SCHOOL EQUIPMENT ANDDEMON. & SALES WK.
281458010SALESMAN, COMMERCIAL EQUIPMENTDEMON. & SALES WK.
282258010SALESMAN, DENTAL AND MEDICAL EDEMON. & SALES WK.
282258018SALESPERSON, SURGICAL APPLIANCDEMON. & SALES WK.
282258014SALESMAN, MEDICAL EQUIPMENT ANDEMON. & SALES WK.
282358010SALESMAN, VETERINARIAN SUPPLIEDEMON. & SALES WK.
284258010SALESMAN, PRECISION INSTRUMENTDEMON. & SALES WK.
284358010SALESMAN, ENGINEERING SUPPLIESDEMON. & SALES WK.
289158010MANUFACTURER'S REPRESENTATIVE PURCH. & SALES WK.
289158014SALESMAN, CONTAINERS (WHOLE. TPURCH. & SALES WK.
289358038SALESMAN, RELIGIOUS SUPPLIES (DEMON. & SALES WK.
289358014SALESMAN, GENERAL (RET. TR.; WDEMON. & SALES WK.

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HEGIS:  5004      TITLE:  GENERAL MERCHANDISE
 USOE:  04080000  TITLE:  GENERAL MERCHANDISE
        162158050BUYER (RET. TR.; WHOLE. TR.) IPURCH. & SALES WK.
        162158030BUYER, ASSISTANT (RET. TR.)   PURCH. & SALES WK.
        185168054MANAGER, STORE (RET.TR.) I    MANAG. WK.
        185168046MANAGER, MERCHANDISE (RET. TR.MANAG. WK.
        189168010DIRECTOR, SERVICE (RET.TR.)   MANAG. WK.
        189168014JUNIOR EXECUTIVE (ANY IND.)   MANAG. WK.
        189168018MANAGER, TRAINEE (ANY IND.)   MANAG. WK.
        209588046MARKER (RET. TR.; WHOLE. TR.) ROUTINE CHECK. & RECORD.
        211468010CASHIER (CLERICAL) II         CASH. (THEATER, REST. & REL
        240368010COLLECTOR (CLERICAL)          INFO. GATHER, DISPENS., & R
        241368010ADJUSTMENT CLERK (CLERICAL)   INFO. GATHER, DISPENS., & R
        243468010SALES-CHECK WRITER (RET.TR.)  CASH. (THEATER, REST. & REL
        249368062NEW-ACCOUNT CLERK (CLERICAL)  INFO. GATHER, DISPENS.,&REL
        263458026SALESPERSON, YARD GOODS (RET. DEMON. & SALES WK.
        266358014SALESPERSON, COSMETICS AND TOIDEMON. & SALES WK.
        274358026SALESPERSON, CHINA AND GLASSWADEMON. & SALES WK.
        283458010SALESPERSON, SILVERWARE (RET. DEMON. & SALES WK.
        289458014SALESPERSON, GENERAL (RET. TR.DEMON. & SALES WK.
        289458010SALESPERSON, FLYING SQUAD (RETDEMON. & SALES WK.
        290468018SALES ATTENDANT (RET. TR.)    CUSTOMER SER. WK., N.E.C.
        290478014SALES CLERK (RET. TR.)        CUSTOMER SER. WK., N.E.C.
        294258010AUCTIONEER (RET. TR.; WHOLE. TDEMON. & SALES WK.
        296358010PERSONAL SHOPPER (RET. TR.)   DEMON. & SALES WK.
        296388010COMPARISON SHOPPER (GARMENT; RCLASSIF., FILING, & REL.WK.
        297458010DEMONSTRATOR (RET. TR.; WHOLE.DEMON. & SALES WK.
        299138022MANAGER, DEPARTMENT (RET. TR.)SUPER. WK. (CLERICAL & REL.
        299358010BRIDAL CONSULTANT (RET. TR.)  DEMON. & SALES WK.
        919883014DELIVERYMAN (ANY IND.) II     DRIVING-OPERATING


HEGIS:  5004      TITLE:  MARKETING
        NO USOE ENTRY


HEGIS:  5004      TITLE:  FOOD DISTRIBUTION
 USOE:  04060000  TITLE:  FOOD DISTRIBUTION
        162158014BROKER (RET. TR.; WHOLE. TR.) PURCH. & SALES WK.
        162158074COMMISSION MAN, LIVESTOCK (WHOPURCH. & SALES WK.
        185168010COMMISSARY MAN (ANY IND.)     MANAG. WK.
        185168034MANAGER, DOUGHNUT SHOP (WHOLE.MANAG. WK.
        211468014CASHIER, COURTESY BOOTH (RET. CASH.(THEATER, REST. & REL.
        223487010CHECKER, BAKERY PRODUCTS (BAKEINSPECT. & STOCK CHECK.
        261158010COMMISSION MAN, AGRICULTURAL PPURCH. & SALES WK.
        261258010SALESMAN, LIVESTOCK (WHOLE. TRDEMON. & SALES WK.
        262358010SALESMAN, FOOD PRODUCTS (WHOLEDEMON. & SALES WK.
        290468010GROCERYMAN, JOURNEYMAN (RET. TCUSTOMER SER. WK., N.E.C.
        290877010SALESPERSON, FOOD (RET. TR.)  MISC. CUSTOMER SERV. WK.
        291158010BUYER (RET. TR.; WHOLE. TR.) IPURCH. & SALES WK.
        291858022PEDDLER (RET. TR.) I          SELLING & REL. WK.
        292138010ROUTE SUPERVISOR (ANY IND.)   SUPER. WK. (CLERICAL & REL.
        292358010SALESMAN-DRIVER (ANY IND.)    DEMON. & SALES WK.
        292887010SALESMAN-DRIVER HELPER (ANY INHANDLING
        299138014DEPARTMENT HEAD, SUPERMARKET  SUPER. WK. (CLERICAL & REL.
        299468010CASHIER-CHECKER (RET.TR.)     CASH. (THEATER, REST. & REL
        299587010BAKERY GIRL (RET. TR.)        SORT.,INSPECT.,& REL. WK.
        920887022BAGGER (RET. TR.)             HANDLING


HEGIS:  5004      TITLE:  INTERNATIONAL TRADE
 USOE:  04140000  TITLE:  INTERNATIONAL TRADE
        163118018MANAGER, EXPORT (ANY IND.)    ADMIN.
        184118026IMPORT-EXPORT AGENT (R. R. TRACONTR. NEGOT. & REL. WK.
        186118018CUSTOMS-HOUSE BROKER (FINAN. ICONTR. NEGOT. & REL. WK.
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HEGIS: 5004 TITLE: FOOD SERVICES (DISTRIBUTIVE)
USOE: 04070000 TITLE: FOOD SERVICES
185168038MANAGER, FOOD CONCESSION (HOTEMANAG. WK.
187168162MANAGER, CATERING (HOTEL & RESMANAG. WK.
187168106MANAGER, LIQUOR ESTABLISHMENT MANAG. WK.
187168126MANAGER, RESTAURANT OR COFFEE MANAG. WK.
216488022FOOD CHECKER (HOTEL & REST.) ICOMPUT. & REL. RECORD.
216488026FOOD CHECKER (HOTEL & REST.) ICOMPUT. & REL. RECORD.
256358010SALESMAN, FOOD-VENDING SERVICEDEMON. & SALES WK.
275358010SALESMAN, HOTEL AND RESTAURANTDEMON. & SALES WK.
281358038SALESMAN, VENDING AND COIN MACDEMON. & SALES WK.
292468010LUNCH-TRUCK DRIVER (HOTEL & RECUSTOMER SER. WK., N.E.C.
292483010COIN-VENDING-MACHINE COLLECTORDELIVERY & SER. WK., N.E.C.
310137010WINE STEWARD (HOTEL & REST.) SUPER. WK. (FARM., MFG.,ETC
310138014STEWARD (HOTEL & REST.) SUPER. WK. (SER & REL.)
310868010HOSTESS, RESTAURANT OR COFFEE ACCOMMODATING WK.

HEGIS: 5004 TITLE: FLORISTRY
USOE: 04050000 TITLE: FLORISTRY
142081050FLORAL DESIGNER (RET. TR.) ART WK.
260458010SALESPERSON, FLOWERS (RET. TR.DEMON. & SALES WK.
289358010SALESMAN, FLORIST SUPPLIES DEMON. & SALES WK.

HEGIS: 5004 TITLE: PERSONNEL, TRAINING, AND RELATED
USOE: 14060000 TITLE: PERSONNEL, TRAINING, AND RELATED OCCUPATIONS
NO DOT ENTRY

HEGIS: 5004 TITLE: PETROLEUM
USOE: 04160000 TITLE: PETROLEUM
163118014MANAGER, CONTRACTS (PETROL. PRADMIN.
168287038FIELD REPRESENTATIVE (RET. TR.APPRAIS. & INVESTIGAT. WK.
181118010MANAGER, BULK PLANT (PETROL. RADMIN.
185168058MANAGER, STORE (RET. TR.) II MANAG. WK.
186118034MANAGER, LEASING (PETROL. PRODADMIN.
191118030LEASEMAN (PETROL. PRODUCTION) CONTR. NEGOT. & REL. WK.
191118042PERMIT AGENT, GEOPHYSICAL PROSCONTR. NEGOT. & REL. WK.
276358030SALESMAN, OIL FIELD SUPPLIES DEMON. & SALES WK.
914168014DISPATCHER, OIL (PETROL. PROD SCHED., EXPED. & REL. WK.
915867010AUTOMOBILE-SERVICE-STATION AT MISC., CUSTOMER SER., WK.
915878010AUTOMOBILE-SELF-SERVE-SERVICE-MISC., PER. SER. (FOOD SER.

HEGIS: 5004 TITLE: SUPERVISORY AND ADMINISTRATIVE MANAGEMENT
USOE: 14080000 TITLE: SUPERVISORY AND ADMINISTRATIVE MANAGEMENT OCCUPATIONS
NO DOT ENTRY

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HEGIS:  5004      TITLE:  REAL ESTATE
 USOE:  04170000  TITLE:  REAL ESTATE
        184118034MANAGER, INDUSTRIAL DEVELOPMENADMIN.
        185168042MANAGER, FRANCHISE PROMOTION  MANAG. WK.
        186118042PROPERTY-RENTAL AGENT (BUS. S CONTR. NEGOT. & REL. WK.
        186118046REAL-ESTATE AGENT (R. R. TRANSADMIN.
        186168022MANAGER, APARTMENT HOUSE (HOTEMANAG. WK.
        186168026MANAGER, HOUSING PROJECT (PROFMANAG. WK.
        186168034MANAGER, PROPERTY (REAL ESTATEMANAG. WK.
        186168038MANAGER, RENTAL DEPARTMENT (PEMANAG. WK.
        186168042MARKET MASTER (RET. TR.; WHOLEMANAG. WK.
        187168194SUPERINTENDENT, BUILDING (ANY MANAG. WK.
        189158010BUSINESS BROKER (REAL ESTATE) PURCH. & SALES WK.
        191118050RIGHT-OF-WAY AGENT (ANY IND.) CONTR. NEGOT. & REL. WK.
        191287014APPRAISER, REAL ESTATE (REAL EAPPRAIS. & INVESTIGAT. WK.
        249388046REAL-ESTATE-LOCATION WRITER (ICLASSIF., FILING, & REL. WK
        250358010BUILDING CONSULTANT (WHOLE. TRDEMON. & SALES WK.
        250358018MEMORIAL COUNSELOR (RET. TR.) DEMON. & SALES WK.
        250358026SALESMAN, REAL ESTATE (REAL ESDEMON. & SALES WK.
        250358022SALES REPRESENTATIVE (MOTOR TRDEMON. & SALES WK.


HEGIS:  5005      TITLE:  FILING, OFFICE MACHINES, & GEN OFF CLERICAL
 USOE:  14070000  TITLE:  FILING, OFFICE MACHINES, AND GENERAL OFFICE CLERICAL OCCUPATI
        NO DOT ENTRY


HEGIS:  5005      TITLE:  TYPEWRITING
 USOE:  14090000  TITLE:  TYPING AND RELATED OCCUPATIONS
        NO DOT ENTRY


HEGIS:  5005      TITLE:  STENOGRAPHIC, SECRETARIAL, AND RELATED
 USOE:  14070000  TITLE:  STENOGRAPHIC, SECRETARIAL, AND RELATED OCCUPATIONS
        NO DOT ENTRY


HEGIS:  5006      TITLE:  BARBERING
 USOE:  17260100  TITLE:  BARBERING
        330371010BARBER (PER. SER.)                BEAUTI. & BARBER. SER.
        330371014BARBER APPRENTICE (PER. SER.) BEAUTI. & BARBER. SER.
        339371014SCALP-TREATMENT OPERATOR (PER.BEAUTI. & BARBER. SER.


HEGIS:  5006      TITLE:  FABRIC MAINT
 USOE:  17160000  TITLE:  FABRIC MAINTENANCE SERVICES
        363782018PRESSER, MACHINE (ANY IND.)    OPERATING-CONTROLLING
        363884022PRESSER, HAND (ANY IND.)       MANIPULATING
        363885022PRESSER, FORM (ANY IND.)       TENDING
        363887014GLOVE FORMER (CLEAN., DYE., & HANDLING
        363887026STRETCHER-DRIER OPERATOR (CLEAHANDLING
        369687010ASSEMBLER (CLEAN., DYE., & PRESORT., INSPECT., & REL. WK.
        369687014CHECKER (CLEAN., DYE., & PRESSSORT., INSPECT., & REL. WK.
        369687018INSPECTOR (CLEAN., DYE., & PRESORT., INSPECT., & REL. WK.
        369877010LAUNDERETTE ATTENDANT (CLEAN.,MISC. CUSTOMER SERV. WK.
        369885034TUMBLER OPERATOR (CLEAN., DYE.TENDING
        369887018MARKER (CLEAN., DYE., & PRESS.HANDLING
        782884078SEAMSTRESS (CLEAN., DYE., & PRMANIPULATING
        789887078GARMENT FOLDER (GARMENT; KNIT HANDLING
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HEGIS: 5006 TITLE: COSMETOLOGY
USOE: 17260200 TITLE: *COSMETOLOGY
331878010MANICURIST (PER SER.) MISC. PER. SER. (FOOD SER.
332138010SUPERVISOR, MAKE-UP (MOTION PISUPER. WK. (SER. & REL.)
332271010COSMETOLOGIST (PER. SER.) BEAUTI. & BARBER. SER.
332271014COSMETOLOGIST, APPRENTICE (PERBEAUTI. & BARBER. SER.
332381010WIG DRESSER (HAIRWORK; PER. SECRAFTS & REL. WK.
333271010BODY-MAKE-UP WOMAN (AMUSE. & RBEAUTI. & BARBER. SER.
333271014MAKE-UP MAN (AMUSE. & REC.; MOBEAUTI. & BARBER. SER.

HEGIS: 5006 TITLE: PERSONAL SERVICES
USOE: 17269900 TITLE: PERSONAL SERVICES, OTHER
334868010RUBBER (PER. SER.) I MISC. PER. SER. (FOOD SER.
334878010MASSEUR (PER. SER.) MISC. PER. SER. (FOOD SER.
334878014REDUCING-SALON ATTENDANT (PER.MISC. PER. SER. (FOOD SER.
335878010COOLING-ROOM ATTENDANT (PER. SMISC. PER. SER. (FOOD SER.
335878014HOT-ROOM ATTENDANT (PER. SER.)MISC. PER. SER. (FOOD SER.
339371010ELECTROLOGIST (PER. SER.) BEAUTI. & BARBER. SER.
339878010REDUCING-MACHINE OPERATOR (PERMISC. PER. SER. (FOOD SER.

HEGIS: 5007 TITLE: PHOTOGRAPHY
USOE: 17090000 TITLE: COMMERCIAL PHOTOGRAPHY OCCUPATIONS
NO DOT ENTRY

HEGIS: 5008 TITLE: BUSINESS INFORMATION COMMUNICATION
USOE: 14040000 TITLE: INFORMATION COMMUNICATION OCCUPATIONS
NO DOT ENTRY

HEGIS: 5008 TITLE: RADIO/TELEVISION
USOE: 17150300 TITLE: RADIO/TELEVISION
720281010RADIO REPAIRMAN (ANY IND.) CRAFTS & REL. WK.
720281018TELEVISION SERVICE-AND-REPAIRMCRAFTS & REL. WK.
720281022TELEVISION SERVICE-AND-REPAIRMCRAFTS & REL. WK.

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HEGIS:  5010      TITLE:  HOTEL AND LODGING
 USOE:  04120000  TITLE:  INDUSTRIAL MARKETING
        16311802 6MANAGER, SALES (ANY IND.)          ADMIN.
        16316801 8MANAGER, UTILITY SALES AND SERMANAG. WK.
        18311801 0MANAGER, BRANCH (ANY IND.)         ADMIN.
        18911801 8MANAGER, INDUSTRIAL ORGANIZATIADMIN.
        18926801 4MANAGER, TECHNICAL SERVICE (PRCONSULT. & BUS. WK.
        25215801 0SALESMAN, INDUSTRIAL RELATIONSPURCH. & SALES WK.
        25235801 4SALESMAN, BUSINESS SERVICES   DEMON. & SALES WK.
        25835801 4SALESMAN, PRINTING (PRINT. & PDEMON. & SALES WK.
        25935802 2SALESMAN, WEATHER FORECASTING DEMON. & SALES WK.
        26335801 0SALESMAN, CANVAS PRODUCTS (WHODEMON. & SALES WK.
        26535801 4SALESMAN, PAPER & PAPER PRODUCDEMON. & SALES WK.
        26535801 8SALESMAN, PRESSURE-SENSITIVE TDEMON. & SALES WK.
        26625801 0SALESMAN, CHEMICALS AND DRUGS DEMON. & SALES WK.
        26835801 0SALESMAN, PLASTIC PRODUCTS (WHDEMON. & SALES WK.
        27025801 0SALESMAN, RUBBER GOODS (WHOLE.DEMON. & SALES WK.
        27135801 0SALESMAN, ABRASIVES (WHOLE. TRDEMON. & SALES WK.
        27325801 0SALESMAN, FOUNDRY AND MACHINE DEMON. & SALES WK.
        27335801 0SALESMAN, METALS (WHOLE. TR.) DEMON. & SALES WK.
        27335801 4SALESMAN, WIRE ROPE (WHOLE. TRDEMON. & SALES WK.
        27615801 0SALESMAN, MACHINERY (WHOLE. TRPURCH. & SALES WK.
        27635802 2SALESMAN, LUBRICATING EQUIPMENDEMON. & SALES WK.
        27635803 4SALESMAN, RADIOGRAPHIC INSPECTDEMON. & SALES WK.
        27635803 8SALESMAN, SAFETY EQUIPMENT (WHDEMON. & SALES WK.
        27635804 6SALESMAN, TEXTILE MACHINERY (WDEMON. & SALES WK.
        27635805 0SALESMAN, ULTRASONIC EQUIPMENTDEMON. & SALES WK.
        27635805 4SALESMAN, WELDING EQUIPMENT (WDEMON. & SALES WK.
        27525801 4SALESMAN, COMMUNICATION EQUIPMDEMON. & SALES WK.
        28115801 0SALESMAN, PRINTING SUPPLIES (WPURCH. & SALES WK.
        28135801 4SALESMAN, BOTTLES AND BOTTLINGDEMON. & SALES WK.
        28135801 8SALESMAN, CHURCH FURNITURE ANDDEMON. & SALES WK.
        28135802 2SALESMAN, CORDAGE (WHOLE. TR.)DEMON. & SALES WK.
        28135802 6SALESMAN, OFFICE MACHINES (RETDEMON. & SALES WK.
        28135803 0SALESMAN, SCHOOL EQUIPMENT ANDDEMON. & SALES WK.
        28145801 0SALESMAN, COMMERCIAL EQUIPMENTDEMON. & SALES WK.
        28225801 0SALESMAN, DENTAL AND MEDICAL EDEMON. & SALES WK.
        28225801 8SALESPERSON, SURGICAL APPLIANCDEMON. & SALES WK.
        28225801 4SALESMAN, MEDICAL EQUIPMENT ANDEMON. & SALES WK.
        28235801 0SALESMAN, VETERINARIAN SUPPLIEDEMON. & SALES WK.
        28425801 0SALESMAN, PRECISION INSTRUMENTDEMON. & SALES WK.
        28435801 0SALESMAN, ENGINEERING SUPPLIESDEMON. & SALES WK.
        28915801 0MANUFACTURER'S REPRESENTATIVE PURCH. & SALES WK.
        28915801 4SALESMAN, CONTAINERS (WHOLE. TPURCH. & SALES WK.
        28935803 8SALESMAN, RELIGIOUS SUPPLIES (DEMON. & SALES WK.
        28975801 4SALESMAN, GENERAL (RET. TR.; WDEMON. & SALES WK.
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MEGIS: 5011 TITLE: TRANSPORTATION
USOE: 04190000 TITLE: TRANSPORTATION

166228010AIRPLANE STEWARDESS, CHIEF (AIBUS. TRAINING
184118018DIRECTOR, TRANSPORTATION (MOTOADMIN.
184118022DISTRICT SALES REPRESENTATIVE CONTR. NEGOT. & REL. WK.
184118042MANAGER, OPERATIONS (AIR TRANSADMIN.
184118046MANAGER, REGIONAL (MOTOR TRANSADMIN.
184118066SUPERINTENDENT, AIRPORT (AIR ADMIN.
184168038DISPATCHER, CHIEF (PETROL. PROMANAG. WK.
184168054GENERAL AGENT, OPERATIONS (R. MANAG. WK.
184168066MANAGER, BUS TRANSPORTATION (MMANAG. WK.
184168074MANAGER, LOCKER PLANT (MOTOR MANAG. WK.
184168078MANAGER, STATION (AIR TRANS.) MANAG. WK.
184168086MANAGER, TERMINAL (MOTOR TRANSMANAG. WK.
184168090MANAGER, TRAFFIC (MOTOR TRANS.MANAG. WK.
184168114MANAGER, WAREHOUSE (ANY IND.) MANAG. WK.
184168122PORT-TRAFFIC MANAGER (WATER TRMANAG. WK.
184168138STATION MASTER (R. R. TRANS.) MANAG. WK.
184168146SUPERINTENDENT, COLD STORAGE MANAG. WK.
184168162SUPERINTENDENT, DIVISION (AIR MANAG. WK.
184168166SUPERINTENDENT, DIVISION (MOTOMANAG. WK.
184168198SUPERINTENDENT, PIPE LINES (PIMANAG. WK.
184168234SUPERINTENDENT, TRANSPORTATIONMANAG. WK.
211468066TOLL COLLECTOR (GOV. SER.) CASH. (THEATER, RES. & REL.
219488058RATE CLERK (MOTOR TRANS.) COMPUT. & REL. RECORD.
255258010TRAFFIC AGENT (MOTOR TRANS.; DEMON. & SALES WK.
259458010CRATING-AND-MOVING ESTIMATOR DEMON. & SALES WK.
276358026SALESMAN, MATERIAL-HANDLING EQDEMON. & SALES WK.
280258010SALESMAN, AIRCRAFT (RET. TR.; DEMON. & SALES WK.
280358010SALESMAN, AIRCRAFT EQUIPMENT ADEMON. & SALES WK.
280358022SALESMAN, BOATS AND NAUTICAL EDEMON. & SALES WK.
280358030SALESMAN, MARINE SUPPLIES (RETDEMON. & SALES WK.
280358038SALESMAN, RAILROAD EQUIPMENT ADEMON. & SALES WK.
351878010PORTER, PULLMAN (R. R. TRANS.)MISC. PER. SER. (FOOD SER.
352878010AIRPLANE STEWARDESS (AIR TRANSMISC. PER. SER. (FOOD SER.
352878014BUS HOSTESS (MOTOR TRANS.) MISC. PER. SER. (FOOD SER.
352878022HOSTESS, TRAIN (R.R. TRANS.) MISC. PER. SER. (FOOD SER.
356878010BAGGAGEMAN (MOTOR TRANS.) MISC. PER. SER. (FOOD SER.
909138010DRIVER SUPERVISOR (MOTOR TRANSSUPER. WK. (FARM., MFG., ET
910138026RAILWAY-EXPRESS AGENT (R. R. TSUPER. WK. (CLERICAL & REL.
910138010BAGGAGE-AND-MAIL AGENT (R. R. SUPER. WK. (FARM., MFG., ET
910768022RESERVATION CLERK (R.R. TRANS.FACIL., SER., & EXPED. WK.
911138018DOCUMENTATION SUPERVISOR (WATESUPER. WK. (CLERICAL & REL.
912138010SUPERVISOR, TICKET SALES (AIR SUPER. WK. (CLERICAL & REL.
912168014SCHEDULE ANALYST (AIR TRANS.) SCHED., EXPED. & REL. WK.
912368022RESERVATIONS AGENT (AIR TRANS.FACIL., SER., & EXPED. WK.
912368010AIRPLANE-DISPATCH CLERK (AIR TFACIL., SER., & EXPED. WK.
912368026TRANSPORTATION AGENT (AIR TRANFACIL., SER., & EXPED. WK.
913138010ROAD SUPERVISOR (MOTOR TRANS.)SUPER. WK. (FARM., MFG., ET
913168014DISPATCHER, BUS AND TROLLEY (MSCHED., EXPED. & REL. WK.
913463018TAXI DRIVER (MOTOR TRANS.) TRANSPORT. SER. WK.
913463010BUS DRIVER (MOTOR TRANS.) TRANSPORT. SER. WK.
919368014TICKET AGENT (ANY IND.) FACIL., SER., & EXPED. WK.
922137046WAREHOUSE TRAFFIC MAN (WHOLE TSUPER. WK. (FARM., MFG., ET
929133010MATERIALS-HANDLING FOREMAN SUPER. WK. (FARM., MFG., ET
929887050MATERIAL HANDLER (ANY IND.) HANDLING

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HEGIS:  5012      TITLE:  COMMERCIAL ART
 USOE:  17070000  TITLE:  COMMERCIAL ART OCCUPATIONS
        141031014DIRECTOR, ART (PROFESS. & KIN.DECOR. & ART WK.
        141051010COLOR EXPERT (PROFESS. & KIN.)DECOR. & ART WK.
        141081014ART LAY-OUT MAN (PRINT. & PUB.ART WK.
        141081034COVER DESIGNER (PROFESS. & KINART WK.
        142081010BANK-NOTE DESIGNER (GOV. SER.)ART WK.
        142081022COMMERCIAL DESIGNER (PROFESS.  ART WK.
        142081118SIGN DESIGNER (SIGNS)          ART WK.
        144081014CARTOONIST (PRINT. & PUB.)     ART WK.
        970281010AIRBRUSH ARTIST (PROFESS. & KICRAFTS & REL. WK.
        970281014DELINEATOR (PROFESS. & KIN.)I  CRAFTS & REL. WK.
        970381018ENGROSSER (PROFESS. & KIN.)    CRAFTS & REL. WK.
        970381026LAY-OUT MAN (SIGNS) II         CRAFTS & REL. WK.
        970381046PAINTER, SIGN (ANY IND.)       CRAFTS & REL. WK.


HEGIS:  5012      TITLE:  ADVERTISING SERVICES
 USOE:  04010000  TITLE:  ADVERTISING SERVICES
        050088034MARKET-RESEARCH ANALYST (PROFESOC. SCI., PSYCH., & REL. R
        132088010COPY WRITER (PROFESS. & KIN.) CREATIVE WRITING
        141081010ADVERTISING LAY-OUT MAN        ART. WK.
        141168010PRODUCTION MANAGER, ADVERTISINMANAG. WK.
        142031010MANAGER, DISPLAY (RET. TR.)    DECOR. & ART WK.
        162158066BUYER, TIME AND SPACE (BUS. SEPURCH. & SALES WK.
        164068010ADVERTISING ASSISTANT (PROFESSPROMOT. & PUB.
        164068014DIRECT-MAIL SPECIALIST (ANY INPROMOT. & PUB.
        164118014MANAGER, ADVERTISING (ANY IND.ADMIN.
        164118010DIRECTOR, ADVERTISING (PRINT.  ADMIN.
        164118018MANAGER, ADVERTISING AGENCY (BADMIN.
        164168010ACCOUNT EXECUTIVE (PROFESS. & MANAG. WK.
        164168014DIRECTOR, MERCHANDISING DISPLAMANAG. WK.
        165068022PUBLIC-RELATIONS MAN (PROFESS.PROMOT. & PUB.
        165068010DEALER-CONTACT MAN (PROFESS. &PROMOT. & PUB.
        165068014PUBLIC PROGRAM SUPERVISOR (TELPROMOT. & PUB.
        165068026SALES-SERVICE MAN (PROFESS. & PROMOT. & PUB.
        249368022COUNTER CLERK (PRINT. & PUB.) INFO. GATHER., DISPENS., &
        252358034SALESMAN, TRADING STAMPS (BUS.DEMON. & SALES WK.
        252358010LEASEMAN (BUS. SER.)           DEMON. & SALES WK.
        253358010SALESMAN, RADIO AND TELEVISIONDEMON. & SALES WK.
        258258010SALESMAN, ART (BUS. SER.)      DEMON. & SALES WK.
        258258014SALESMAN, SIGNS AND DISPLAYS   DEMON. & SALES WK.
        258358010SALESMAN, ADVERTISING (PRINT.  DEMON. & SALES WK.
        258358018SALESMAN, SIGNS (WHOLE. TR.)   DEMON. & SALES WK.
        298081010DISPLAY MAN (RET. TR.)         ART. WK.
        298381010DECORATOR (ANY IND.) I         ARTIS. RESTER., DECOR., & R
        298884010ADVERTISING-DISPLAY ROTATOR (BMANIPULATING
        299138026SAMPLE DISTRIBUTOR CREW SUPERVSUPER. WK. (CLERICAL & REL.
        299887022SAMPLE DISTRIBUTOR (BUS. SER.)HANDLING
        353368010ATTENDANT, TRAVELING DISPLAY (INFO. GATHER.,DISPENS.,& RE
        970081010SIGN WRITER, HAND (ANY IND.)   ART WK.


HEGIS:  5012      TITLE:  LEATHERWORKING
 USOE:  17340000  TITLE:  LEATHERWORKING
        365381010LUGGAGE REPAIRMAN (ANY IND.)   CRAFTS & REL. WK.
        690782038EMBOSSER (LEATHER MFG.; LEATHEOPERATING-CONTROLLING
        690885266LEATHER-BELT MAKER (LEATHER PRTENDING
        690885366SKIVER (LEATHER PROD.)         TENDING
        753884050LEATHER TOOLER (FURN.)         MANIPULATING
        781781010LEATHER STAMPER (LEATHER PROD.PRECISION WK.
        784884010ASSEMBLER, HANDBAGS (LEATHER PMANIPULATING
        789387010LEATHER GRADER (GARMENT; GLOVEINSPECT. & STOCK CHECK.
        789684010INSPECTOR (LEATHER PROD.)      SORT., INSPECT., & REL. WK.
        789781014COLLAR MAKER (LEATHER PROD.)   PRECISION WK.
        789781018HARNESS MAKER (LEATHER PROD.)  PRECISION WK.
        789781022LUGGAGE MAKER (LEATHER PROD.)  PRECISION WK.
        789781026SADDLE MAKER (LEATHER PROD.)   PRECISION WK.
        789884026CASE MAKER (LEATHER PROD.)     MANIPULATING
        789884054LEATHER WORKER (LEATHER PROD.)MANIPULATING
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HEGIS:  5012      TITLE:  GRAPHIC ARTS
 USOE:  17190000  TITLE:  GRAPHIC ARTS OCCUPATIONS
        659130010FOREMAN, PRINTING SHOP (PRINT.SUPER. WK. (FARM., MFG. ETC
        979138010PRODUCTION SUPERVISOR (PRINT. SUPER. WK. (CLERICAL & REL.


HEGIS:  5012      TITLE:  PAINTING AND DECORATING
 USOE:  17100500  TITLE:  PAINTING AND DECORATING
        840131010PAINTER FOREMAN (CONST.)       SUPER. WK. (FARM., MFG. ETC
        840131014PAINTER FOREMAN, SHIPYARD      SUPER. WK. (FARM., MFG. ETC
        840381010PAINTER, STAGE SETTINGS (MOTIOCRAFTS & REL. WK.
        840781010PAINTER (CONST.)               PRECISION WK.
        840781014PAINTER APPRENTICE, SHIPYARD   PRECISION WK.
        840781018PAINTER, SHIPYARD (SHIP & BOATPRECISION WK.
        840884010BITUMINOUS ENAMELER (ANY IND.)MANIPULATING
        840884018PAINTER, ROUGH (CONST.)        MANIPULATING
        840884022PAINTER, STRUCTURAL STEEL      MANIPULATING
        840887014PAINT-STRIPING-MACHINE OPERATOHANDLING
        840887018PAINTER HELPER (CONST.)        HANDLING
        840887022PAINTER HELPER, BOAT (SHIP &   HANDLING
        841781010PAINTER-AND-DECORATOR APPRENTIPRECISION WK.
        841781014PAPERHANGER (CONST.)           PRECISION WK.
        843884022WATERPROOFER (CONST.)          MANIPULATING


HEGIS:  5012      TITLE:  WOODWORKING
 USOE:  17360000  TITLE:  WOODWORKING
        NO DOT ENTRY


HEGIS:  5099      TITLE:  BUSINESS LAW
 USOE:  14080000  TITLE:  SUPERVISORY AND ADMINISTRATIVE MANAGEMENT OCCUPATIONS
        NO DOT ENTRY


HEGIS:  5099      TITLE:  FOREMANSHIP, SUPERVISION, & MGT DVLPT
 USOE:  17170000  TITLE:  FOREMANSHIP, SUPERVISION AND MANAGEMENT DEVELOPMENT
        NO DOT ENTRY


HEGIS:  5100      TITLE:  BUSINESS DATA PROCESSING SYSTEMS
 USOE:  14020000  TITLE:  BUSINESS DATA PROCESSING SYSTEMS OCCUPATIONS
        020168010PROJECT DIRECTOR BUSINESS DATAMATH., PHYS. SCI., & REL. R
        169168058MANAGER ELECTRONIC DATA PROCESMANAG. WK.
        213138014SUPERVISOR, MACHINE RECORDS UNSUPER. WK. (CLERICAL & REL.


HEGIS:  5101      TITLE:  SCIENTIFIC DATA PROCESSING
 USOE:  16011700  TITLE:  SCIENTIFIC DATA PROCESSING
        020188030PROGRAMMER, ENGINEERING AND SCMATH., PHYS. SCI., & REL. R


HEGIS:  5201      TITLE:  COMMUNITY HEALTH AIDE
 USOE:  07090600  TITLE:  COMMUNITY HEALTH AID
        NO DOT ENTRY
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HEGIS: 5201 TITLE: HEALTH SERVICES MANAGEMENT
USOE: 07990000 TITLE: HEALTH OCCUPATIONS EDUCATION, OTHER
NO DOT ENTRY

HEGIS: 5201 TITLE: HOME HEALTH AIDE
USOE: 07030700 TITLE: HOME HEALTH AID
354878014HOME ATTENDANT (PER. SER.) CHILD & ADULT CARE

HEGIS: 5202 TITLE: DENTAL ASSISTING
USOE: 07010100 TITLE: DENTAL ASSISTING
079378010DENTAL ASSISTANT (MEDICAL SER.NURSING, X-RAY, & REL. SER.

HEGIS: 5203 TITLE: DENTAL HYGIENE
USOE: 07010200 TITLE: DENTAL HYGIENE (ASSOCIATE DEGREE)
078368014DENTAL HYGIENIST (MEDICAL SER.NURSING, X-RAY, & REL. SER.

HEGIS: 5204 TITLE: DENTAL LABORATORY TECHNOLOGY
USOE: 07010300 TITLE: DENTAL LABORATORY TECHNOLOGY
712281010DENTAL CERAMIST (MEDICAL SER.)CRAFTS & REL. WK.
712381010CONTOUR WIRE SPECIALIST, DENTUCRAFTS & REL. WK.
712381014DENTAL-LABORATORY TECHNICIAN CRAFTS & REL. WK.
712781022ORTHODONTIC GOLD-BAND MAKER (MPRECISION WK.
712381034MOLDER, BENCH (DENTAL EQUIP.) CRAFTS & REL. WK.
712381042SET-UP MAN, DENTURE (MEDICAL SCRAFTS & REL. WK.

HEGIS: 5205 TITLE: CYTOLOGY, CYTOTECHNOLOGY
USOE: 07020100 TITLE: CYTOLOGY (CYTOTECHNOLOGY)
078281014CYTOTECHNOLOGIST (MEDICAL SER.MAT. ANALYSIS & REL. WK.

HEGIS: 5205 TITLE: HISTOLOGY
USOE: 07020200 TITLE: HISTOLOGY
078381018TISSUE TECHNOLOGIST (MEDICAL SMAT. ANALYSIS & REL. WK.

HEGIS: 5205 TITLE: MEDICAL LABORATORY ASSISTING
USOE: 07020300 TITLE: MEDICAL LABORATORY ASSISTING
078281010BIOCHEMISTRY TECHNOLOGIST (MEDMAT. ANALYSIS & REL. WK.
078281018MEDICAL TECHNOLOGIST (MEDICAL MAT. ANALYSIS & REL. WK.
078281022MICROBIOLOGY TECHNOLOGIST (DRUMAT. ANALYSIS & REL. WK.
078381010MEDICAL-LABORATORY ASSISTANT (MAT. ANALYSIS & REL. WK.
078678010LABORATORY ASSISTANT, PLASMA DSORT., INSPECT., & REL. WK.

HEGIS: 5205 TITLE: HEMATOLOGY
USOE: 07020400 TITLE: HEMATOLOGY
078281010HEMATOLOGY TECHNOLOGIST (MEDICMAT. ANALYSIS & REL. WK.

HEGIS: 5207 TITLE: RADIATION THERAPY
USOE: 07050200 TITLE: RADIATION THERAPY
NO DOT ENTRY

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HEGIS:  5207      TITLE:  RADIOLOGICAL HEALTH TECHNICIAN
 USOE:  07070200  TITLE:  RADIOLOGICAL HEALTH TECHNICIAN
        19918701ORADIATION MONITOR (PROFESS. & APPRAIS. & INVESTIGAT. WK.


HEGIS:  5207      TITLE:  RADIOLOGIC TECHNOLOGY, X-RAY
 USOE:  07050100  TITLE:  RADIOLOGIC TECHNOLOGY (X-RAY)
        07836803ORADIOLOGIC TECHNOLOGIST (SURGINURSING, X-RAY & REL. SER.


HEGIS:  5209      TITLE:  NURSING
 USOE:  07030100  TITLE:  NURSING (ASSOCIATE DEGREE)
        07537801ONURSE ANESTHETIST (MEDICAL SERNURSING, X-RAY & REL. SER.
        07537801 4NURSE, GENERAL DUTY (MEDICAL SNURSING, X-RAY & REL. SER.
        07537802 2NURSE, PRIVATE DUTY (MEDICAL SNURSING, X-RAY & REL. SER.
        07537802 6NURSE, STAFF, OCCUPATIONAL HEANURSING, X-RAY & REL. SER.
        07537803ONURSE-MIDWIFE (MEDICAL SER.)  NURSING, X-RAY & REL. SER.


HEGIS:  5209      TITLE:  NURSING ASSISTANCE, AIDE
 USOE:  07030300  TITLE:  NURSING ASSISTANCE (AID)
        35587802 2COTTAGE PARENT (MEDICAL SER.) CHILD & ADULT CARE
        35587803 4NURSE AID (MEDICAL SER.)      CHILD & ADULT CARE
        35587803 8ORDERLY (MEDICAL SER.)        CHILD & ADULT CARE


HEGIS:  5209      TITLE:  NURSING
 USOE:  07030100  TITLE:  NURSING (ASSOCIATE DEGREE)
        07537801ONURSE ANESTHETIST (MEDICAL SERNURSING, X-RAY & REL. SER.
        07537801 4NURSE, GENERAL DUTY (MEDICAL SNURSING, X-RAY & REL. SER.
        07537802 2NURSE, PRIVATE DUTY (MEDICAL SNURSING, X-RAY & REL. SER.
        07537802 6NURSE, STAFF, OCCUPATIONAL HEANURSING, X-RAY & REL. SER.
        07537803ONURSE-MIDWIFE (MEDICAL SER.)  NURSING, X-RAY & REL. SER.


HEGIS:  5209      TITLE:  PRACTICAL NURSING
 USOE:  07030200  TITLE:  PRACTICAL (VOCATIONAL) NURSING
        07937802 6NURSE, LICENSED, PRACTICAL (MENURSING, X-RAY & REL. SER.
        35487801 8MIDWIFE (MEDICAL SER.)        CHILD & ADULT CARE
        35487802 2NURSE, PRACTICAL (MEDICAL SER.CHILD & ADULT CARE


HEGIS:  5210      TITLE:  OCCUPATIONAL THERAPY
 USOE:  07040100  TITLE:  OCCUPATIONAL THERAPY
        07936802 6OCCUPATIONAL THERAPY AIDE (MEDNURSING, X-RAY & REL. SER.


HEGIS:  5211      TITLE:  OBSTETRICAL TECHNICIAN
 USOE:  07030600  TITLE:  OBSTETRICAL TECHNICIAN
        07937802 6OBSTETRICAL TECHNICIAN (MEDICANURSING, X-RAY & REL. WK.


HEGIS:  5211      TITLE:  SURGICAL TECHNICIAN, OPERATING
 USOE:  07030500  TITLE:  SURGICAL TECHNICIAN (OPERATING ROOM TECHNICIAN)
        07937804 2SURGICAL TECHNICIAN (MEDICAL SNURSING, X-RAY & REL. WK.
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HEGIS: 5212 TITLE: ORTHOPTICS
USOE: 07060200 TITLE: ORTHOPTICS
07937803 ORTHOPTIST (MEDICAL SER.) NURSING, X-RAY & REL. SER.

HEGIS: 5212 TITLE: OPTOMETRIC TECHNICAL SERVICES
USOE: 07060300 TITLE: OPTOMETRIST ASSISTANT
NO DOT ENTRY

HEGIS: 5212 TITLE: OPHTHALMIC DISPENSING
USOE: 07060100 TITLE: OPHTHALMIC DISPENSING
29947801 CONTACT-LENS TECHNICIAN (RET. CUSTOMER SER. WK., N. E. C.
29984014 OPTICIAN, DISPENSING (RET. TR. MANIPULATING
71325101 OPTICIAN, DISPENSING (OPTICAL SALES & SER. WK.
71328101 ARTIFICIAL-PLASTIC-EYE MAKER CRAFTS & REL. WK.
71388406 MOUNTER AND REPAIRER (OPTICAL MANIPULATING

HEGIS: 5213 TITLE: MEDICAL RECORD TECHNOLOGY
USOE: 07990000 TITLE: HEALTH OCCUPATIONS EDUCATION, OTHER
NO DOT ENTRY

HEGIS: 5214 TITLE: MEDICAL ASSISTANT
USOE: 07090400 TITLE: MEDICAL ASSISTANT (ASSISTANT IN PHYSICIAN'S OFFICE)
07936802 MEDICAL ASSISTANT (MEDICAL SER NURSING, X-RAY & REL. SER.

HEGIS: 5215 TITLE: INHALATION THERAPY
USOE: 07090300 TITLE: INHALATION THERAPY
07936801 INHALATION THERAPIST (MEDICAL NURSING, X-RAY & REL. SER.

HEGIS: 5216 TITLE: PSYCHIATRIC AIDE
USOE: 07030400 TITLE: PSYCHIATRIC AID
35587804 PSYCHIATRIC AID (MEDICAL SER.) CHILD & ADULT CARE

HEGIS: 5216 TITLE: MENTAL RETARDATION AIDE
USOE: 07080200 TITLE: MENTAL RETARDATION AID
NO DOT ENTRY

HEGIS: 5216 TITLE: MENTAL HEALTH TECHNOLOGY
USOE: 07080100 TITLE: MENTAL HEALTH TECHNICIAN
NO DOT ENTRY

HEGIS: 5217 TITLE: ELECTROENCEPHALOGRAPH TECHNICIAN
USOE: 07090100 TITLE: ELECTROENCEPHALOGRAPH TECHNICIAN
07836802 ELECTROENCEPHALOGRAPH TECHNICI NURSING, X-RAY & REL. SER.

HEGIS: 5217 TITLE: ELECTROCARDIOGRAPH TECHNICIAN
USOE: 07090200 TITLE: ELECTROCARDIOGRAPH TECHNICIAN
07836801 8ELECTROCARDIOGRAPH TECHNICIAN NURSING, X-RAY & REL. SER.

HEGIS: 5219 TITLE: PHYSICAL THERAPY TECHNOLOGY
USOE: 07040200 TITLE: PHYSICAL THERAPY
35587801 4ATTENDANT, PHYSICAL THERAPY (MCHILD & ADULT CARE

HEGIS: 5299 TITLE: CENTRAL SUPPLY TECHNICIAN (HEALTH)
USOE: 07090500 TITLE: CENTRAL SUPPLY TECHNICIAN
22388701 0CENTRAL SUPPLY WORKER (MEDICALHANDLING

HEGIS: 5299 TITLE: EMERGENCY MEDICAL TECHNOLOGY
USOE: 07090700 TITLE: MEDICAL EMERGENCY TECHNICIAN
35487801 0FIRST-AID ATTENDANT (ANY IND.)CHILD & ADULT CARE
35587801 0AMBULANCE ATTENDANT (MEDICAL SCHILD & ADULT CARE
35587802 6EMERGENCY-ENTRANCE ATTENDANT (USHER, MESS. SER., & REL. W

HEGIS: 5299 TITLE: ORTHOTICS
USOE: 07040400 TITLE: ORTHOTICS
07836802 6RTHOTIST (SURGICAL APPL.) CHILD & ADULT CARE
71228101 8ORTHOPEDIC-APPLIANCE-AND-LIMB CRAFTS & REL. SER.
71284046 0RTHOPEDIC-CAST SPECIALIST (MEMANIPULATING

HEGIS: 5299 TITLE: MORTUARY SCIENCE
USOE: 07090900 TITLE: MORTUARY SCIENCE
16828707 4MORTICIAN INVESTIGATOR (GOV. SAPPRAIS. & INVESTIGAT. WK.
33838101 0EMBALMER (PER. SER.) CRAFTS & REL. WK.
33938101 0LADY ATTENDANT (PER. SER.) CRAFTS & REL. WK.

HEGIS: 5299 TITLE: NUCLEAR MEDICAL TECHNOLOGY
USOE: 07050300 TITLE: NUCLEAR MEDICAL TECHNOLOGY
07838101 4NUCLEAR MEDICAL TECHNOLOGIST (MAT. ANALYSIS & REL. WK.

HEGIS: 5299 TITLE: ORTHOPEDIC ASSISTING
USOE: 07091000 TITLE: ORTHOPEDIC ASSISTING
NO DOT ENTRY

HEGIS: 5299 TITLE: PROSTHETICS
USOE: 07040300 TITLE: PROSTHETICS
07836802 6PROSTHETIST (SURGICAL APPL.) CHILD & ADULT CARE

HEGIS: 5299 TITLE: SCHOOL HEALTH AIDE
USOE: 07030800 TITLE: SCHOOL HEALTH AID
NO DOT ENTRY

HEGIS: 5300 TITLE: APPLIED MATHEMATICS
NO USOE ENTRY

HEGIS: 5301 TITLE: METALWORKING
USOE: 17230000 TITLE: METALWORKING
NO DOT ENTRY

HEGIS: 5302 TITLE: AVIATION
USOE: 17040000 TITLE: AVIATION OCCUPATIONS
NO DOT ENTRY

HEGIS: 5302 TITLE: AVIATION GROUND OPERATIONS
USOE: 17040300 TITLE: GROUND OPERATIONS
193168010AIR-TRAFFIC COORDINATOR (GOV.SSCHED., EXPED. & REL. WK.
193168014AIR-TRAFFIC-CONTROL SPECIALISTSCHED., EXPED. & REL. WK.
193168018AIR-TRAFFIC-CONTROL SPECIALISTSCHED., EXPED. & REL. WK.
912368010AIRPLANE-DISPATCH CLERK (AIR TFACIL., SER., & EXPED. WK.
912384010AIRPORT SERVICEMAN (AIR TRANS.INSPECT. & STOCK CHECK.
912388010TRIP FOLLOWER (AIR TRANS.) CLASSIF., FILING, & REL. WK

HEGIS: 5302 TITLE: AIRCRAFT MAINTENANCE
USOE: 17040100 TITLE: AIRCRAFT MAINTENANCE
621228010FIELD-SERVICE REPRESENTATIVE INDUST. TRAINING
621281010AIRCRAFT-AND-ENGINE MECHANIC CRAFTS & REL. WK.
621281022AIRPLANE INSPECTOR (AIR TRANS.CRAFTS & REL. WK.
621281046MECHANIC, FIELD-AND-SERVICE (ACRAFTS & REL. WK.
621381014FLIGHT-TEST SHOP MECHANIC (AIRCRAFTS & REL. WK.
621884010AIRCRAFT-AND-ENGINE MECHANIC MANIPULATING
693281010EXPERIMENTAL MECHANIC (AIRCRAFCRAFTS & REL. WK.

HEGIS: 5302 TITLE: AIRCRAFT OPERATIONS
USOE: 17040200 TITLE: AIRCRAFT OPERATIONS
621281038FLIGHT ENGINEER (AIR TRANS.) CRAFTS & REL. WK.

HEGIS: 5303 TITLE: TOOL AND DIE MAKING
USOE: 17230700 TITLE: TOOL AND DIE MAKING

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601130010TOOL-AND-DIE FOREMAN (MACH. SHSUPER. WK. (FARM., MFG. ETC
601280010DIE-MAKER APPRENTICE (MACH. SHSET-UP OR MACH. OPER.
601280014DIE MAKER, DIE-CASTING AND PLASET-UP OR MACH. OPER.
601280018DIE MAKER, STAMPING (MACH. SHOSET-UP OR MACH. OPER.
601280022DIE MAKER, TRIM (MACH. SHOP)  SET-UP OR MACH. OPER.
601280026DIE MAKER, WIRE DRAWING (MACH.SET-UP OR MACH. OPER.
601280034DIE-TEMPLATE MAKER, EXTRUSION SET-UP OR MACH. OPER.
601280058TOOL MAKER (MACH. SHOP)        SET-UP OR MACH. OPER.
601280062TOOL-AND-DIE MAKER (MACH. SHOPSET-UP OR MACH. OPER.
601280066TOOL-AND-DIE-MAKER APPRENTICE SET-UP OR MACH. OPER.
601280070TOOL-MACHINE SET-UP OPERATOR (SET-UP OR MACH. OPER.
601280074TOOL-MAKER APPRENTICE (MACH. SSET-UP OR MACH. OPER.
601281010DIE MAKER, BENCH, STAMPING (MACRAFTS & REL. WK.
601281014DIE MAKER, FOUR-SLIDE MACHINE CRAFTS & REL. WK.
601281022DIE-TRY-OUT MAN, STAMPING (MACCRAFTS & REL. WK.
601281030INSPECTOR, GAGE (MACH. SHOP)  CRAFTS & REL. WK.
601281034INSPECTOR, SET-UP AND LAY-OUT CRAFTS & REL. WK.
601281038INSPECTOR, TOOL (MACH. SHOP)  CRAFTS & REL. WK.
601281042PROGRESSIVE-DIE MAKER (MACH. SCRAFTS & REL. WK.
601281046TOOL MAKER, BENCH (MACH. SHOP)CRAFTS & REL. WK.
601381014DIE FINISHER (MACH. SHOP)      CRAFTS & REL. WK.
601381030PLASTIC TOOL MAKER (MACH. SHOPCRAFTS & REL. WK.
601381034PLASTIC-FIXTURE BUILDER (MACH.CRAFTS & REL. WK.
601381042TEMPLATE MAKER (ANY IND.)      CRAFTS & REL. WK.
601782010KNIFE GRINDER (WOODWORKING)    OPERATING-CONTROLLING
601782018TOOL DRESSER (ANY IND.)        OPERATING-CONTROLLING
601885010TOOL-DRESS HELPER (ANY IND.)   TENDING
705781010DIE BARBER (MACH. SHOP)        PRECISION WK.
705884034FINAL FINISHER, FORGING DIES   MANIPULATING
705884058MOLD FINISHER (MACH. SHOP)     MANIPULATING
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HEGIS: 5304 TITLE: DRAFTING
USOE: 17130000 TITLE: DRAFTING

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001281010DRAFTSMAN, ARCHITECTURAL (PROFDRAFTING & REL. WK.
002281014DRAFTSMAN, AERONAUTICAL (PROFEDRAFTING & REL. WK.
002281018ENGINEERING CHECKER (AIRCRAFT DRAFTING & REL. WK.
003281010DRAFTSMAN, ELECTRICAL (PROFESSDRAFTING & REL. WK.
003281014DRAFTSMAN, ELECTRONIC (PROFESSDRAFTING & REL. WK.
003281022ESTIMATOR AND DRAFTSMAN (LIGHTDRAFTING & REL. WK.
005281014DRAFTSMAN, CIVIL (PROFESS. & KDRAFTING & REL. WK.
005281018DRAFTSMAN, STRUCTURAL (PROFESSDRAFTING & REL. WK.
007181014DIE DESIGNER (MACH. SHOP)      DRAFTING & REL. WK.
007187010DESIGN CHECKER (PROFESS. & KINENGR. & REL. WK.
007187026TOOL-DRAWING CHECKER (AIRCRAFTENG. & REL. WK.
007281014DRAFTSMAN, MECHANICAL (PROFESSDRAFTING & REL. WK.
007281026LAY-OUT MAN AND CHECKER (PROFEDRAFTING & REL. WK.
010281018DRAFTSMAN, GEOLOGICAL (PETROL.DRAFTING & REL. WK.
010281026DRAFTSMAN, MINE (MINING & QUARDRAFTING & REL. WK.
014188010DRAFTSMAN, HULL-BALLAST CALCULMATH., PHYS. SCI., & REL. P
014281018DRAFTSMAN, MARINE (PROFESS. & DRAFTING & REL. WK.
017281010AUTO-BODY DESIGNER (AUTO. MFG.DRAFTING & REL. WK.
017281014AUTO-BODY LAY-OUT DRAFTSMAN (ADRAFTING & REL. WK.
017281022CABLE-LAY-OUT MAN (TEL. & TEL.DRAFTING & REL. WK.
017281018AUTO-BODY-DESIGN DETAILER (AUTDRAFTING & REL. WK.
017281030DETAIL MAN, FURNITURE (PROFESSDRAFTING & REL. WK.
017281034DETAILER (PROFESS. & KIN.)     DRAFTING & REL. WK.
017281038DRAFTSMAN APPRENTICE (PROFESS.DRAFTING & REL. WK.
017281050DRAFTSMAN, DETAIL (PROFESS. & DRAFTING & REL. WK.
017281054DRAFTSMAN, HEATING AND VENTILADRAFTING & REL. WK.
017281058DRAFTSMAN, MAP (PROFESS. & KINDRAFTING & REL. WK.
017281062DRAFTSMAN, OIL AND GAS (PETROLDRAFTING & REL. WK.
019281010DRAFTSMAN, LANDSCAPE (PROFESS.DRAFTING & REL. WK.
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HEGIS:  5305      TITLE:  CHEMICAL TECHNOLOGY
 USOE:  16010500  TITLE:  CHEMICAL TECHNOLOGY
        008380010ANALYTICAL RESEARCH TECHNICIANSET-UP OR MACH. OPER.
        008380014PILOT-PLANT OPERATOR (PETROL. SET-UP OR MACH. OPER.
        022181010COLORIST (PROFESS. & KIN.) I   MAT. ANALYSIS & REL. WK.
        022281010ASSAYER (PROFESS. & KIN.)      MAT. ANALYSIS & REL. WK.
        022281014CHEMICAL-LABORATORY TECHNICIANMAT. ANALYSIS & REL. WK.
        022384010CHEMIST HELPER, PETROLEUM (PETTECH. WK., SCI. & REL. WK.
        024381010LABORATORY ASSISTANT (PETROL. MAT. ANALYSIS & REL. WK.
        029281018LABORATORY TESTER (ANY IND.) IMAT. ANALYSIS & REL. WK.
        029281026TESTER (PETROL. REFIN.)        MAT. ANALYSIS & REL. WK.
        530281010COLORMAN (PAPER & PULP)        CRAFTS & REL. WK.
        539384010PULP-AND-PAPER TESTER (PAPER &INSPECT. & STOCK CHECK.
        558280010CHIEF OPERATOR (CHEM.)         SET-UP OR MACH. OPER.


HEGIS:  5305      TITLE:  PLASTICS
 USOE:  17270000  TITLE:  PLASTICS OCCUPATIONS
        553884010HEAT WELDER, PLASTICS (FABRIC.MANIPULATING
        556780010MOLD SETTER (FABRIC. PLASTICS SET UP & ADJUSTMENT
        556782010ARCH-CUSHION-PRESS OPERATOR (ROPERATING-CONTROLLING
        556782014COMPRESSION-MOLDING-MACHINE OPOPERATING-CONTROLLING
        556782030INJECTION-MOLDING-MACHINE OPEROPERATING-CONTROLLING
        556782034PLATE MOLDER (PEN & PENCIL; PROPERATING-CONTROLLING
        556885034COMPRESSION-MOLDING-MACHINE TETENDING
        556885054INJECTION-MOLDING-MACHINE TENDTENDING
        556885070MOLDER, PIPE COVERING (FABRIC.TENDING
        556885086PILLING-MACHINE OPERATOR (FABRTENDING
        556885102VACUUM PLASTIC-FORMING-MACHINETENDING
        557782010EXTRUDER OPERATOR (FABRIC. PLAOPERATING-CONTROLLING
        559885130FOAM-MACHINE OPERATOR (NEEDLE,TENDING
        575782026FIBERGLASS-DOWEL-DRAWING-MACHIOPERATING-CONTROLLING
        590887014PLASTIC-JOINT MAKER (BRICK & THANDLING
        690885426TUBE MOLDER, FIBER GLASS (FABRTENDING
        691782018EXTRUDING-MACHINE OPERATOR (INOPERATING-CONTROLLING
        754381014INTERNAL CARVER (FABROC. PLASTCRAFTS & REL. WK.
        754381022PLASTICS BENCH MECHANIC (AIRCRCRAFTS & REL. WK.
        754884014ASSEMBLER-AND-GLUER, LAMINATEDMANIPULATING
        754884022CASTER (FABRIC. PLASTICS PROD.MANIPULATING
        754884038LAMINATOR, PREFORMS (FABRIC. PMANIPULATING
        754884042MOLD LAMINATOR (SHIP & BOAT BLMANIPULATING
        754884046PLASTIC LAY-UP MAN (MACH. TOOLMANIPULATING
        754884050PLASTICS FABRICATOR (AIRCRAFT MANIPULATING
        754884054REPAIRMAN (FABRIC. PLASTICS PRMANIPULATING
        777381010EAR-MOLD LABORATORY TECHNICIANCRAFTS & REL. WK.
        779884066PLASTIC MOLDER (MODEL & PATTERMANIPULATING


HEGIS:  5306      TITLE:  AUTO BODY AND FENDER
 USOE:  17030100  TITLE:  BODY AND FENDER
        807287010SHOP ESTIMATOR (AUTO. SER.)    APPRAIS. & INVESTIGAT. WK.
        807381010AUTOMOBILE-BODY REPAIRMAN      CRAFTS & REL. WK.
        807381022BODY REPAIRMAN, BUS (AUTO. SERCRAFTS & REL. WK.
        807884030FLOOR SERVICE MAN, SPRING (AUTMANIPULATING
        845781018PAINTER, AUTOMOBILE (AUTO. SERPRECISION WK.


HEGIS:  5306      TITLE:  AUTOMOTIVE SERVICES
 USOE:  17030000  TITLE:  AUTOMOTIVE SERVICES
        379384010AUTOMOBILE TESTER (GOV. SER.) INSPECT. & STOCK CLERK.
        620281038BUS INSPECTOR (AUTO. SER.)     CRAFTS & REL. WK.
        620884054USED-CAR RENOVATOR (RET. TR.) MANIPULATING
        806381034NEW-CAR GET-READY MAN (AUTO SECRAFTS & REL. WK.
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HEGIS:  5306      TITLE:  AUTOMOTIVE MECHANICS
 USOE:  17030200  TITLE:  MECHANICS
        620281014AUTOMOBILE MECHANIC (AUTO. SERCRAFTS & REL. WK.
        620281018AUTOMOBILE TESTER (AUTO. SER.)CRAFTS & REL. WK.
        620381014AUTOMOBILE-SERVICE MECHANIC (ACRAFTS & REL. WK.
        620884010AUTOMOBILE-MECHANIC HELPER (AUMANIPULATING


HEGIS:  5307      TITLE:  DIESEL MECHANIC
 USOE:  17120000  TITLE:  DIESEL MECHANIC
        625281010DIESEL MECHANIC (ANY IND.)     CRAFTS & REL. WK.
        625281014DIESEL-ENGINE TESTER (ENGINE &CRAFTS & REL. WK.
        625281030FUEL-INJECTION SERVICEMAN (ANYCRAFTS & REL. WK.
        625884010DIESEL-MECHANIC HELPER (ANY INMANIPULATING


HEGIS:  5308      TITLE:  WELDING AND CUTTING
 USOE:  17230600  TITLE:  WELDING AND CUTTING
        810884038WELDER, TACK (WELDING)         MANIPULATING
        819381022WELDER, FITTER (WELDING)       CRAFTS & REL. WK.
        819781010FIT-UP MAN (MACH. MFG.)        PRECISION WK.


HEGIS:  5309      TITLE:  CIVIL TECHNOLOGY
 USOE:  16010600  TITLE:  CIVIL TECHNOLOGY
        249288018FIELD-MAP EDITOR (CLERICAL)    SURV., PROSP., & REL. WK.
        249587010NOTE KEEPER (ANY IND.)         SORT., INSPECT., & REL. WK.


HEGIS:  5309      TITLE:  ROADWAY TECHNOLOGY
 USOE:  16010602  TITLE:  SANITATION TECHNOLOGY
        025288010HYDROGRAPHER (WATERWORKS)      SURV., PROSP., & REL. WK.


HEGIS:  5309      TITLE:  STRUCTURAL TECHNOLOGY
 USOE:  16010603  TITLE:  STRUCTURAL TECHNOLOGY
        019288018SPECIFICATION WRITER, ENGINEERTECH. WRITING & REL. WK.


HEGIS:  5310      TITLE:  APPLIANCE REPAIR
 USOE:  17020000  TITLE:  APPLIANCE REPAIR
        827281022HOUSEHOLD-APPLIANCE REPAIRMAN CRAFTS & REL. WK.
        827381018HOUSEHOLD-APPLIANCE-INSTALLATICRAFTS & REL. WK.


HEGIS:  5310      TITLE:  ELECTRONICS
 USOE:  17150000  TITLE:  ELECTRONICS OCCUPATIONS
        722281010INSPECTOR, SYSTEMS (ELECTRONICCRAFTS & REL. WK.
        722381014INSTRUMENT INSPECTOR (AIRCRAFTCRAFTS & REL. WK.
        726781010ELECTRONICS ASSEMBLER (ELECTROPRECISION WK.
        729381030TESTER, SYSTEMS (ELECTRONICS) CRAFTS & REL. WK.


HEGIS:  5310      TITLE:  BUSINESS MACHINE MAINT
 USOE:  17060000  TITLE:  BUSINESS MACHINE MAINTENANCE
        633131010OFFICE-MACHINE-SERVICEMAN FORESUPER. WK. (FARM., MFG. ETC
        633281030OFFICE-MACHINE SERVICEMAN (ANYCRAFTS & REL. WK.
        633281034OFFICE-MACHINE-SERVICEMAN APPRCRAFTS & REL. WK.
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HEGIS: 5311 TITLE: ELECTROMECHANICS
USOE: 16010900 TITLE: ELECTROMECHANICAL TECHNOLOGY
019281022STANDARDS-LABORATORY TECHNICIARADIO & TV TRANS. & RECEIVI
629281026ELECTRIC-EYE-SORTING-MACHINE TCRAFTS & REL. WK.
712281014MEDICAL-APPRATUS MODEL MAKER (CRAFTS & REL. WK.
806281018EXPERIMENTAL MECHANIC, ELECTRICRAFTS & REL. WK.

HEGIS: 5312 TITLE: METALLURGY
USOE: 17240000 TITLE: METALLURGY
502382010FLUOROSCOPE OPERATOR (AIRCRAFTINSPECT. & STOCK CHECK.
504131010HEAT-TREAT FOREMAN (HEAT TREATSUPER. WK. (FARM. MFG. ETC.
504281010HEAT-TREAT INSPECTOR (HEAT TRECRAFTS & REL. WK.
504380014FLAME-HARDENING-MACHINE SET-UPSET-UP OR MACH. OPER.
504387010HARDNESS INSPECTOR (HEAT TREATINSPECT. & STOCK CHECK.
504782010ANNEALER (HEAT TREAT.) OPERATING-CONTROLLING
504782014CASE HARDENER (HEAT TREAT.) OPERATING-CONTROLLING
504782018HARDENER (HEAT TREAT.) OPERATING-CONTROLLING
504782026HEAT TREATER (HEAT TREAT.) I OPERATING-CONTROLLING
504782030HEAT TREATER (HEAT TREAT.) II OPERATING-CONTROLLING
504782034HEAT-TREATER APPRENTICE (HEAT OPERATING-CONTROLLING
504782038HEAT-TREATING BLUER (HEAT TREAOPERATING-CONTROLLING
504782042TEMPERER (HEAT TREAT.) OPERATING-CONTROLLING
609382010INSPECTOR, MAGNETIC (MACH. SHOINSPECT. & STOCK CHECK.
614884010TESTER OPERATOR (NONFER. METALMANIPULATING
616381010SPRING-INSPECTOR (SPRING) I CRAFTS & REL. WK.
619381014INSPECTOR (IRON & STEEL) CRAFTS & REL. WK.
619384010INSPECTOR (NONFER. METAL ALLOYINSPECT. & STOCK CHECK.
691387014INSPECTOR, WIRE (WIRE) INSPECT. & STOCK CHECK.
709337010INSPECTOR, TIN CAN (TINWARE) INSPECT. & STOCK CHECK.
709687022ZYGLO INSPECTOR (ANY IND.) SORT., INSPECT., & REL. WK.
727687010ALUMINUM-CONTAINER TESTER (ELESORT., INSPECT., & REL. WK.
737387018INSPECTOR (AMMUNITION) I INSPECT. & STOCK CHECK.
607387010INSPECTOR, SURFACE PROCESSING INSPECT. & STOCK CHECK.
819381010WELD INSPECTOR (WELDING) INSPECT. & STOCK CHECK.
862685010WATER-TEST MAN (ANY IND.) SORT., INSPECT., & REL. WK.

HEGIS: 5312 TITLE: PRODUCTION (INDUSTRIAL AND MECHANICAL)
USOE: 16011303 TITLE: PRODUCTION
019281018QUALITY-CONTROL TECHNICIAN (PRTECH. WK., ENGR. & REL.
019281026TEST TECHNICIAN (AGRIC. EQUIP.TECH. WK., ENGR. & REL.

HEGIS: 5312 TITLE: INDUSTRIAL TECHNOLOGY
USOE: 16011100 TITLE: INDUSTRIAL TECHNOLOGY
012188042MATERIAL SCHEDULER (AIRCRAFT MINDUSTR. ENGR. & REL. WK.
012188050PROCESS-DESCRIPTION WRITER (ANTECH. WRITING & REL. WK.
012188058PRODUCTION PLANNER (PROFESS. &INDUST. ENGR. & REL. WK.
012188078TOOL PLANNER (ANY IND.) INDUST. ENGR. & REL. WK.
012288010INDUSTRIAL ENGINEERING TECHNICINDUST. ENGR. & REL. WK.
539387010FINAL INSPECTOR, PAPER (PAPER INSPECT. & STOCK CHECK.
638281026MAINTENANCE TECHNICIAN (PROFESCRAFTS & REL. WK.
723381014MODEL MAKER, FLUORESCENT LIGHTCRAFTS & REL. WK.
739381038EXPERIMENTAL ASSEMBLER (ANY INCRAFTS & REL. WK.

HEGIS: 5313 TITLE: TEXTILE PRODUCTION AND FABRICATION
USOE: 17330000 TITLE: TEXTILE PRODUCTION AND FABRICATION
785381014SAMPLE STITCHER (GARMENT) CRAFTS & REL. WK.
789687038GARMENT-ALTERATION EXAMINER SORT., INSPECT., & REL. WK.

HEGIS: 5314 TITLE: INSTRUMENT MAINTENANCE AND REPAIR OCC
USOE: 17210000 TITLE: INSTRUMENT MAINTENANCE AND REPAIR
715381026COORDINATE-MEASURING-MACHINE TCRAFTS & REL. WK.

HEGIS: 5315 TITLE: ENGINE REPAIR
USOE: 17310000 TITLE: SMALL ENGINE REPAIR, INTERNAL COMBUSTION
620281086MOTORCYLE REPAIRMAN (AUTO SER.CRAFTS. & REL. WK.
625281034GASOLINE-ENGINE REPAIRMAN (ANYCRAFTS. & REL. WK.
625281038OUTBOARD-MOTOR TESTER (ENGINE CRAFTS. & REL. WK.
625281042POWER-SAW MECHANIC (ANY IND.) CRAFTS. & REL. WK.
625381018LIFE TESTER, OUTBOARD MOTORS CRAFTS. & REL. WK.
806281030INTERNAL-COMBUSTION-ENGINE INSCRAFTS. & REL. WK.

HEGIS: 5315 TITLE: STATIONARY ENERGY SOURCES
USOE: 17320000 TITLE: STATIONARY ENERGY SOURCES OCCUPATIONS
950782054STATIONARY ENGINEER (ANY IND.)OPERATING-CONTROLLING
950885014BOILER ROOM HELPER (ANY IND.) TENDING
951885010COAL-SUBSTATION ATTENDANT (ANYTENDING
951885014FIREMAN, HIGH PRESSURE (ANY INTENDING
951885018FIREMAN, LOW PRESSURE (ANY INDTENDING
951885022FIREMAN, MARINE (WATER TRANS.)TENDING
952782030POWER-PLANT OPERATOR (ANY IND.OPERATING-CONTROLLING

HEGIS: 5315 TITLE: PRODUCTION (INDUSTRIAL AND MECHANICAL)
USOE: 16011303 TITLE: PRODUCTION
019281018QUALITY-CONTROL TECHNICIAN (PRTECH. WK., ENGR. & REL.
019281026TEST TECHNICIAN (AGRIC. EQUIP.TECH. WK., ENGR. & REL.

HEGIS: 5315 TITLE: MECHANICAL TECHNOLOGY
USOE: 16011300 TITLE: MECHANICAL TECHNOLOGY
007181022ENGINEERING ASSISTANT, MECHANIDRAFTING & REL. WK.
007181026MECHANICAL-ENGINEERING TECHNICTECH. WK., ENGR. & REL.
007187022TOOL PROGRAMMER, NUMERICAL CONENGR. & REL. WK.
029381026LABORATORY ASSISTANT (LIGHT, HMAT. ANALYSIS & REL. WK.
636281010AUTOMATED EQUIPMENT ENGINEER-TCRAFTS & REL. WK.

HEGIS: 5315 TITLE: MACHINE SHOP
USOE: 17230200 TITLE: MACHINE SHOP

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600131010MACHINE-SHOP FOREMAN, TOOL (MASUPER. WK. (FARM., MFG. ETC
600280010EXPERIMENTAL MECHANIC (MOTOR &SET-UP OR MACH. OPER.
600280018INSTRUMENT MAKER (ANY IND.) IISET-UP OR MACH. OPER.
600280014INSTRUMENT BUILDER (INST. & APSET-UP OR MACH. OPER.
600280022INSTRUMENT-MAKER APPRENTICE   SET-UP OR MACH. OPER.
600280026INSTRUMENT-MAKER-AND-REPAIRMANSET-UP OR MACH. OPER.
600280030MACHINIST (MACH. SHOP) I      SET-UP OR MACH. OPER.
600280034MACHINIST APPRENTICE (MACH. SHSET-UP OR MACH. OPER.
600280038MACHINIST APPRENTICE, AUTOMOTISET-UP OR MACH. OPER.
600280042MACHINIST, EXPERIMENTAL       SET-UP OR MACH. OPER.
600280046MACHINIST, ULTRASONIC (MACH. SSET-UP OR MACH. OPER.
600280050MACHINIST, AUTOMOTIVE (AUTO. SSET-UP OR MACH. OPER.
600280054MAINTENANCE MACHINIST (ANY INDSET-UP OR MACH. OPER.
600280058MODEL MAKER (FIREARMS)        SET-UP OR MACH. OPER.
600280062PATTERNMAKER APPRENTICE, METALSET-UP OR MACH. OPER.
600280066PATTERNMAKER, METAL (FOUND.)  SET-UP OR MACH. OPER.
600281010ASSEMBLER, STEAM-AND-GAS TURBICRAFTS & REL. WK.
600281014INSPECTOR, ROUGH CASTINGS (FOUCRAFTS & REL. WK.
600281018MACHINE BUILDER (MACH. MFG.;  CRAFTS & REL. WK.
600380014FIXTURE MAKER (LIGHT. FIX.)   SET-UP OR MACH. OPER.
600380022JOB SETTER (MACH. SHOP)       SET-UP OR MACH. OPER.
600380026MACHINE SET-UP OPERATOR (MACH.SET-UP OR MACH. OPER.
600380030MACHINE TRY-OUT MAN (MACH. TOOSET-UP OR MACH. OPER.
600380034MODEL MAKER (INST. & APP.)    SET-UP OR MACH. OPER.
600380042SET-UP MAN, PLASTICS (FABRIC. SET-UP OR MACH. OPER.
600381010LAY-OUT MAN (MACH. SHOP)      CRAFTS & REL. WK.
600884010INSTRUMENT-MAKER HELPER (ANY  MANIPULATING
609782026ELECTRICAL-DISCHARGE-MACHINE OOPERATING-CONTROLLING
609782030ELECTRICAL-DISCHARGE-MACHINE  OPERATING-CONTROLLING
609782042MULTI-PURPOSE MACHINE OPERATOROPERATING-CONTROLLING
609782054TAPE-CONTROL-MACHINE OPERATOR OPERATING-CONTROLLING
609885022PRODUCTION-MACHINE OPERATOR   TENDING
705781018LAPPER, HAND, TOOL (MACH. SHOPPRECISION WK.
705884086SCRAPER, HAND (MACH. SHOP)    MANIPULATING
801381030BLOWER-AND-COMPRESSOR ASSEMBLECRAFTS & REL. WK.
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HEGIS: 5315 TITLE: TOOL AND DIE MAKING
USOE: 17230700 TITLE: TOOL AND DIE MAKING

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601130010TOOL-AND-DIE FOREMAN (MACH. SHSUPER. WK. (FARM., MFG. ETC
601280010DIE-MAKER APPRENTICE (MACH. SHSET-UP OR MACH. OPER.
601280014DIE MAKER, DIE-CASTING AND PLASET-UP OR MACH. OPER.
601280018DIE MAKER, STAMPING (MACH. SHOSET-UP OR MACH. OPER.
601280022DIE MAKER, TRIM (MACH. SHOP)  SET-UP OR MACH. OPER.
601280026DIE MAKER, WIRE DRAWING (MACH.SET-UP OR MACH. OPER.
601280034DIE-TEMPLATE MAKER, EXTRUSION SET-UP OR MACH. OPER.
601280058TOOL MAKER (MACH. SHOP)       SET-UP OR MACH. OPER.
601280062TOOL-AND-DIE MAKER (MACH. SHOPSET-UP OR MACH. OPER.
601280066TOOL-AND-DIE-MAKER APPRENTICE SET-UP OR MACH. OPER.
601280070TOOL-MACHINE SET-UP OPERATOR (SET-UP OR MACH. OPER.
601280074TOOL-MAKER APPRENTICE (MACH. SSET-UP OR MACH. OPER.
601281010DIE MAKER, BENCH, STAMPING (MACRAFTS & REL. WK.
601281014DIE MAKER, FOUR-SLIDE MACHINE CRAFTS & REL. WK.
601281022DIE-TRY-OUT MAN, STAMPING (MACCRAFTS & REL. WK.
601281030INSPECTOR, GAGE (MACH. SHOP)  CRAFTS & REL. WK.
601281034INSPECTOR, SET-UP AND LAY-OUT CRAFTS & REL. WK.
601281038INSPECTOR, TOOL (MACH. SHOP)  CRAFTS & REL. WK.
601281042PROGPESSIVE-DIE MAKER (MACH. SCRAFTS & REL. WK.
601281046TOOL MAKER, BENCH (MACH. SHOP)CRAFTS & REL. WK.
601381014DIE FINISHER (MACH. SHOP)     CRAFTS & REL. WK.
601381030PLASTIC TOOL MAKER (MACH. SHOPCRAFTS & REL. WK.
601381034PLASTIC-FIXTURE BUILDER (MACH.CRAFTS & REL. WK.
601381042TEMPLATE MAKER (ANY IND.)     CRAFTS & REL. WK.
601782010KNIFE GRINDER (WOODWORKING)   OPERATING-CONTROLLING
601782018TOOL DRESSER (ANY IND.)       OPERATING-CONTROLLING
601885010TOOL-DRESS HELPER (ANY IND.)  TENDING
705781010DIE BARBER (MACH. SHOP)       PRECISION WK.
705884034FINAL FINISHER, FORGING DIES  MANIPULATING
705884058MOLD FINISHER (MACH. SHOP)    MANIPULATING
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HEGIS:  5316      TITLE:  INDUSTRIAL ATOMIC ENERGY
 USOE:  17200000  TITLE:  INDUSTRIAL ATOMIC ENERGY
        NO DOT ENTRY


HEGIS:  5317      TITLE:  AIR CONDITIONING
 USOE:  17010000  TITLE:  AIR CONDITIONING
        620281010AIR-CONDITIONING MECHANIC (AUTCRAFTS & REL. WK.
        637281010AIR-CONDITIONING MECHANIC, COMCRAFTS & REL. WK.
        637281014AIR-CONDITIONING MECHANIC, DOMCRAFTS & REL. WK.
        801381014AIRCRAFT MECHANIC, HEAT AND VECRAFTS & REL. WK.


HEGIS:  5317      TITLE:  DRYWALL INSTALLATION
 USOE:  17100800  TITLE:  DRY-WALL INSTALLATION
        840887010DRY-WALL SANDER (CONST.)          HANDLING
        842884010DRY-WALL APPLICATOR (CONST.)      MANIPULATING
        842884022TAPER (CONST.)                    MANIPULATING


HEGIS:  5317      TITLE:  BLUEPRINT READING
 USOE:  17050000  TITLE:  BLUEPRINT READING
        NO DOT ENTRY


HEGIS:  5317      TITLE:  BUILDING CONSTRUCTION AND MAINT
 USOE:  17100000  TITLE:  CONSTRUCTION AND MAINTENANCE TRADES
        869281014HOUSE BUILDER (CONST.)            CRAFTS & REL. WK.
        869287010BRIDGE INSPECTOR (R.R. TRANS.)APPRAIS. & INVESTIGAT. WK.
        869381010CONDUIT MECHANIC (CONST.; LIGHCRAFTS & REL. WK.
        869381014HOUSE REPAIRMAN (CONST.)          CRAFTS & REL. WK.
        869381018REPAIRMAN (LIGHT, HEAT, & POWECRAFTS & REL. WK.
        899381010MAINTENANCE MAN, BUILDING (ANYCRAFTS & REL. WK.
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HEGIS: 5317 TITLE: CARPENTRY
USOE: 17100100 TITLE: CARPENTRY

86013101	0BOATBUILDER FOREMAN, WOOD (SHI	SUPER. WK. (FARM., MFG. ETC
86013101	8CARPENTER FOREMAN (CONST.)	SUPER. WK. (FARM., MFG. ETC
86013101	4BOWLING-ALLEY-INSTALLATION FOR	SUPER. WK. (FARM., MFG. ETC
86013102	2JOINER FOREMAN (SHIP & BOAT BL	SUPER. WK. (FARM., MFG. ETC
86013701	0CARPENTER-LABOR FOREMAN (CONST	SUPER. WK. (FARM., MFG. ETC
86028101	0CARPENTER INSPECTOR (ANY IND.)	CRAFTS & REL. WK.
86028101	4CARPENTER, MAINTENANCE (ANY IN	CRAFTS & REL. WK.
86028101	8CARPENTER, SHIP'S (WATER TRANS	CRAFTS & REL. WK.
86038101	0ACOUSTICAL CARPENTER (CONST.)	CRAFTS & REL. WK.
86038101	4BOATBUILDER APPRENTICE, WOOD	CRAFTS & REL. WK.
86038101	8BOATBUILDER, WOOD	CRAFTS & REL. WK.
86038102	6CARPENTER (CONST.)	CRAFTS & REL. WK.
86038103	0CARPENTER APPRENTICE (CONST.)	CRAFTS & REL. WK.
86038103	8FORM BUILDER (CONST.)	CRAFTS & REL. WK.
86038104	6JOINER (SHIP & BOAT BLDG. & RE	CRAFTS & REL. WK.
86038105	0JOINER APPRENTICE	CRAFTS & REL. WK.
86038105	4SHIPWRIGHT (SHIP & BOAT BLDG.	CRAFTS & REL. WK.
86038105	8SHIPWRIGHT APPRENTICE	CRAFTS & REL. WK.
86038106	2TANK BUILDER AND ERECTOR	CRAFTS & REL. WK.
86038106	6TANK ERECTOR (CONST.)	CRAFTS & REL. WK.
86078101	0BILLBOARD ERECTOR-AND-REPAIRMA	PRECISION WK.
86078101	4CARPENTER, ROUGH (CONST.)	PRECISION WK.
86088401	0FORM-BUILDER HELPER (CONST.)	MANIPULATING
86088401	4SHORER (CONST.)	MANIPULATING
86088701	0CARPENTER HELPER, MAINTENANCE	HANDLING
86088701	4CARPENTER HELPER, HARDWOOD	HANDLING
86088701	8LABORER, CARPENTRY (CONST.)	HANDLING
86088702	2LABORER, CARPENTRY, DOCK	HANDLING
86088703	0SHIPWRIGHT HELPER (SHIP & BOAT	HANDLING

HEGIS: 5317 TITLE: CONSTRUCTION EQUIPMENT
USOE: 17100300 TITLE: HEAVY EQUIPMENT (CONSTRUCTION)
NO DOT ENTRY

HEGIS: 5317 TITLE: ELECTRICAL CONSTRUCTION
USOE: 17100200 TITLE: ELECTRICITY

82413801	0ELECTRICIAN, CHIEF (MOTION PIC	SUPER. WK. (FARM., MFG. ETC
82428101	0ELECTRIC-DISTRIBUTION CHECKER	CRAFTS & REL. WK.
82428101	4ELECTRICIAN (ANY IND.)	CRAFTS & REL. WK.
82428102	2NEON-SIGN SERVICEMAN (SIGNS)	CRAFTS & REL. WK.
82438101	0ELECTRICIAN, STAGE (AMUSE. &	CRAFTS & REL. WK.
82538103	0ELECTRICIAN (SHIP & BOAT BLDG.	CRAFTS & REL. WK.
82988401	4ELECTRICIAN HELPER (SHIP & BOA	MANIPULATING
82988701	4ELECTRICIAN HELPER (ANY IND.)	HANDLING

HEGIS: 5317 TITLE: ROOFING
USOE: 17101000 TITLE: ROOFING

86638101	0ROOFER (CONST.)	CRAFTS & REL. WK.
86638101	4ROOFER APPRENTICE (CONST.)	CRAFTS & REL. WK.
86688401	0CORRUGATED-SHEET-MATERIAL SHEE	MANIPULATING
86888701	0ROOFER HELPER (CONST.)	HANDLING

HEGIS: 5317 TITLE: INDUSTRIAL ELECTRICITY
USOE: 17140000 TITLE: ELECTRICAL OCCUPATIONS

82528102	2ELECTRICIAN (WATER TRANS.)	CRAFTS & REL. WK.
82528103	4ELECTRICIAN, LOCOMOTIVE (LOCO.	CRAFTS & REL. WK.
82928102	2ELECTRICAL REPAIRMAN (ANY IND.	CRAFTS & REL. WK.

HEGIS: 5317 TITLE: MASONRY
USOE: 17100400 TITLE: MASONRY

859884010	BRICKLAYER, PAVING BRICK (CONS	MANIPULATING
861381010	BRICKLAYER (CONST.)	CRAFTS & REL. WK.
861381014	BRICKLAYER (BRICK & TILE)	CRAFTS & REL. WK.
861381022	BRICKLAYER, FIREBRICK (ANY IND	CRAFTS & REL. WK.
861381042	MARBLE SETTER (CONST.)	CRAFTS & REL. WK.
861381046	MONUMENT SETTER (CONST.)	CRAFTS & REL. WK.
861781010	PERMASTONE MAN (CONST.)	PRECISION WK.
861781014	SOFT-TILE SETTER (CONST.)	PRECISION WK.
861781022	STONEMASON (CONST.)	PRECISION WK.
861781030	TERAZZO WORKER (CONST.)	PRECISION WK.
861884042	TUCK POINTER (CONST.)	MANIPULATING
899884014	CHIMNEY REPAIRMAN (BUS. SER.)	MANIPULATING

HEGIS: 5317 TITLE: PLASTERING
USOE: 17100600 TITLE: PLASTERING

842381010	STUCCO MASON (CONST.)	CRAFTS & REL. WK.
842781010	LATHER (CONST.)	PRECISION WK.
842781018	PLASTERER (CONST.)	PRECISION WK.
842781026	PLASTERER, MOLDING (CONC. PROD	PRECISION WK.
842884018	PERMASTONE DRESSER (CONST.)	MANIPULATING
842885010	PLASTER-MACHINE TENDER (CONST.	TENDING
842887010	PLASTERER HELPER (CONST.)	HANDLING

HEGIS: 5317 TITLE: PLUMBING AND PIPE FITTING
USOE: 17100700 TITLE: PLUMBING AND PIPEFITTING

851884022	PIPE LAYER (CONST.)	MANIPULATING
862281010	COPPERSMITH (SHIP & BOAT BLDG.	CRAFTS & REL. WK.
862281022	PIPE FITTER (SHIP & BOAT BLDG.	CRAFTS & REL. WK.
862381026	GAS-MAIN FITTER (LIGHT, HEAT	CRAFTS & REL. WK.
862381030	INDUSTRIAL-GAS FITTER (LIGHT,	CRAFTS & REL. WK.
862381042	PIPE FITTER (CONST.) I	CRAFTS & REL. WK.
862381046	PIPE FITTER, DIESEL ENGINE	CRAFTS & REL. WK.
862381070	PIPE FITTER, SPRINKLER SYSTEMS	CRAFTS & REL. WK.
862381074	PLUMBER (CONST.)	CRAFTS & REL. WK.
862381082	PLUMBER, MAINTENANCE (ANY IND.	CRAFTS & REL. WK.
862381090	STEAM SERVICEMAN (LIGHT, HEAT,	CRAFTS & REL. WK.
862687010	COOLING-PIPE INSPECTOR (CONST.	SORT., INSPECT., & REL. WK.
862884010	FITTER (CONST.; PIPE LINES)	MANIPULATING
869884046	LAWN-SPRINKLER INSTALLER (CONS	MANIPULATING

HEGIS: 5317 TITLE: GLAZING
USOE: 17100900 TITLE: GLAZING

865131010	GLAZIER FOREMAN (CONST.)	SUPER. WK. (FARM., MFG. ETC
865781010	GLAZIER (CONST.)	PRECISION WK.
865884010	GLASS INSTALLER (AUTO. SER.)	MANIPULATING
865884014	GLASS INSTALLER (FURN.; PLAN.	MANIPULATING
865884018	GLAZIER, METAL FURNITURE (FURN	MANIPULATING
865884030	SAFETY-GLASS INSTALLER (AIRCRA	MANIPULATING
865887010	GLAZIER HELPER (CONST.)	HANDLING

HEGIS: 5317 TITLE: SHEET METAL
USOE: 17230500 TITLE: SHEET METAL
616380022MULTI-OPERATION-FORMING-MACHINSET-UP OR MACH. OPER.
616380030SET-UP MAN, SHEET METAL (ANY ISET-UP OR MACH. OPER.
616380034SHEET-METAL-FABRICATING MACHINSET-UP OR MACH. OPER.
616780010BODY-MAKER MAINTENANCE MAN (TISET UP & ADJUSTMENT
616885046MULTI-OPERATION FORMING-MACHINTENDING
617380018BRAKE OPERATOR, SHEET METAL (ASET-UP OR MACH. OPER.
617782022BUMPER OPERATOR (AIRCRAFT MFG.OPERATING-CONTROLLING
617782042ROLL-FORMING-MACHINE OPERATOR OPERATING-CONTROLLING
617885050ROLL-FORMING-MACHINE OPERATOR TENDING
619380030MULTI-OPERATION-FORMING-MACHINSET-UP OR MACH. OPER.
619782070ROLL OPERATOR, SHEET METAL (ANTENDING
619782102STRETCHER-LEVELER OPERATOR (NOTENDING
804281010SHEET-METAL WORKER (ANY IND.) CRAFTS & REL. WK.
804281014SHEET-METAL-WORKER APPRENTICE CRAFTS & REL. WK.
809381026SHEET-METAL-LAY-OUT MAN (ANY ICRAFTS & REL. WK.

HEGIS: 5317 TITLE: WOODWORKING
USOE: 17360000 TITLE: WOODWORKING
NO DOT ENTRY

HEGIS: 5399 TITLE: CUSTODIAL SERVICES
USOE: 17110000 TITLE: CUSTODIAL SERVICES
358887010CHANGE-HOUSE MAN (ANY IND.) HANDLING
361137010CHARWOMAN, HEAD (ANY IND.) SUPER. WK. (FARM., MFG. ETC
381137014PORTER, HEAD (ANY IND.) SUPER. WK. (FARM., MFG. ETC
381887014CHARWOMAN (ANY IND.) HANDLING
381887026PORTER (ANY IND.) I HANDLING
381887030PORTER (ANY IND.) II HANDLING
382884010JANITOR (ANY IND.) I MANIPULATING
389887018FLOOR WAXER (ANY IND.) HANDLING
389887022SEXTON (NONPROFIT ORGAN.) HANDLING
389887030WALL WASHER (ANY IND.) HANDLING

HEGIS: 5400 TITLE: APPLIED SCIENCE (BIOLOGICAL)
NO USOE ENTRY

HEGIS: 5400 TITLE: APPLIED SCIENCE (EARTH)
NO USOE ENTRY

HEGIS: 5400 TITLE: APPLIED SCIENCE (PHYSICAL)
NO USOE ENTRY

HEGIS: 5402 TITLE: ANIMAL SCIENCE
USOE: 01010100 TITLE: ANIMAL SCIENCE

153288026	HORSE TRAINER (AMUSE. & REC.)	ANIMAL TRAINING
411181010	FARMER, DAIRY (AGRIC.)	CROP., ANIMAL FARM., & REL.
411181014	HERDSMAN, DAIRY (AGRIC.)	CROP., ANIMAL FARM., & REL.
411884010	FARM HAND, DAIRY (AGRIC.) I	MANIPULATING
411884014	FARM HAND, DAIRY (AGRIC.) II	MANIPULATING
411885010	MILKING-MACHINE OPERATOR (AGRI	TENDING
412181014	POULTRY BREEDER (AGRIC.)	CROP., ANIMAL FARM., & REL.
412181018	POULTRYMAN, EGG (AGRIC.)	CROP., ANIMAL FARM., & REL.
412181022	POULTRYMAN, MEAT (AGRIC.)	CROP., ANIMAL FARM., & REL.
412884014	FARM HAND, POULTRY (AGRIC.)	MANIPULATING
412887014	LABORER, HATCHERY (AGRIC.)	HANDLING
413131010	STOCK-RANCH FOREMAN (AGRIC.)	SUPER. WK. (FARM., MFG. ETC
413138010	CAMP TENDER (AGRIC.)	SUPER. WK. (FARM., MFG. ETC
413181010	CATTLE RANCHER (AGRIC.)	CROP., ANIMAL FARM., & REL.
413181014	GOAT KEEPER (AGRIC.)	CROP., ANIMAL FARM., & REL.
413181018	HERDSMAN, SWINE (AGRIC.)	CROP., ANIMAL FARM., & REL.
413181022	HORSE BREEDER (AGRIC.)	CROP., ANIMAL FARM., & REL.
413181026	SHEEP RANCHER (AGRIC.)	CROP., ANIMAL FARM., & REL.
413884018	FARM HAND, LIVESTOCK (AGRIC.)	MANIPULATING
413884030	RANCH HAND (AGRIC.)	MANIPULATING
419131010	BARN BOSS (ANY IND.)	SUPER. WK. (FARM., & REL. W
419181010	ANIMAL BREEDER (AGRIC.)	CROP., ANIMAL FARM., & REL.
419181014	BEEKEEPER (ANY IND.)	CROP., ANIMAL FARM., & REL.

HEGIS: 5402 TITLE: AGRICULTURAL RESOURCES
USOE: 01060000 TITLE: AGRICULTURAL RESOURCES (CONSERVATION, UTILIZATION, AND SERVICE

180168010	AIRPLANE PILOT-CONSERVATION OF	MANAG. WK.

HEGIS: 5402 TITLE: AGRICULTURAL PRODUCTS
USOE: 01040000 TITLE: AGRICULTURAL PRODUCTS (PROCESSING, INSPECTION AND MARKETING)

040381010	LABORATORY TECHNICIAN, ARTIFICIAL	ANALYSIS & REL. WK.
168287014	APIARY INSPECTOR (GOV. SER.)	APPRAIS. & INVESTIGAT. WK.

HEGIS: 5402 TITLE: FARM BUSINESS MANAGEMENT
USOE: 01010400 TITLE: FARM BUSINESS MANAGEMENT

180168022	GENERAL MANAGER, FARM (AGRIC.)	MANAG. WK.
409168010	MANAGER, FARM (AGRIC.)	MANAG. WK.
409181010	FARMER, TENANT (AGRIC.)	CROP., ANIMAL FARM., & REL.

HEGIS: 5402 TITLE: AGRICULTURE PRODUCTION
USOE: 01010000 TITLE: AGRICULTURAL PRODUCTION

180118010	FIELD MAN (ANY IND.)	CONTR. NEGOT. & REL. WK.
180168026	GROUP LEADER (AGRIC.)	MANAG. WK.
180168034	MIGRANT LEADER (AGRIC.)	MANAG. WK.
421181010	FARMER, GENERAL (AGRIC.)	CROP., ANIMAL FARM., & REL.
421883010	FARM HAND, GENERAL (AGRIC.) I	DRIVING-OPERATING
421884010	CARETAKER, FARM (AGRIC.)	MANIPULATING
429131010	FARM FOREMAN (AGRIC.)	SUPER. WK. (FARM., MFG. ETC

HEGIS: 5402 TITLE: AGRICULTURAL MECHANICS
USOE: 01030000 TITLE: AGRICULTURAL MECHANICS
NO DOT ENTRY

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HEGIS:  5402      TITLE:  PLANT SCIENCE
 USOE:  01010200  TITLE:  PLANT SCIENCE
        180168030MANAGER, PRODUCTION, SEED CORNMANAG. WK.
        180168038SUPERINTENDENT (AGRIC., CAN. &MANAG. WK.
        180168042SUPERINTENDENT, PRODUCTION (AGMANAG. WK.
        180168018FIELD SUPERVISOR, SEED PRODUCTMANAG. WK.
        401137010DETASSELING-CREW SUPERVISOR (ASUPER. WK. (FARM., MFG. ETC
        401138010AREA FOREMAN (AGRIC.)          SUPER. WK. (FARM., MFG. ETC
        401181010FARMER, CASH GRAIN (AGRIC.)    CROP., ANIMAL FARM., & REL.
        401884010FARM HAND, GRAIN (AGRIC.) I    MANIPULATING
        402181010COTTON GROWER (AGRIC.)         CROP., ANIMAL FARM., & REL.
        402883010FARM HAND, COTTON (AGRIC.) I   DRIVING-OPERATING
        403137010ROW BOSS, THINNING (AGRIC.)    SUPER. WK. (FARM., MFG. ETC
        403181010VEGETABLE GROWER (AGRIC.)      CROP., ANIMAL FARM., & REL.
        403883010FARM HAND, VEGETABLE (AGRIC) IDRIVING-OPERATING
        403886010SEED CUTTER (AGRIC.)           FEEDING-OFFBEARING
        401131010FRUIT-FARM FOREMAN (AGRIC.)    SUPER. WK. (FARM., MFG. ETC
        404137010GROVE FOREMAN (AGRIC.)         SUPER. WK. (FARM., MFG. ETC
        404181010BERRY GROWER (AGRIC.)          CROP., ANIMAL FARM., & REL.
        404181014GRAPE GROWER (AGRIC.)          CROP., ANIMAL FARM., & REL.
        404181018ORCHARDIST (AGRIC.)            CROP., ANIMAL FARM., & REL.
        404883010CRANBERRY PICKER, MACHINE (AGRDRIVING-OPERATING
        404883014FARM HAND, CITRUS FRUIT (AGRI.DRIVING-OPERATING
        404883018FARM HAND, FRUIT (AGRIC.) I    DRIVING-OPERATING
        404883022FRUIT-HARVESTER OPERATOR (AGRIDRIVING-OPERATING
        404883026SHAKING-MACHINE OPERATOR (AGRIDRIVING-OPERATING
        404887010FARM HAND, BERRY (AGRIC.)      HANDLING
        404887018FARM HAND, FRUIT (AGRIC.) II   HANDLING
        405181010DRUG GROWER (AGRIC.)           CROP., ANIMAL FARM., & REL
        405181014HAY FARMER (AGRIC.)            CROP., ANIMAL FARM., & REL
        405181018HOP GROWER (AGRIC.)            CROP., ANIMAL FARM., & REL
        405181022PEANUT FARMER (AGRIC.)         CROP., ANIMAL FARM., & REL
        405181026SUGARCANE PLANTER (AGRIC.)     CROP., ANIMAL FARM., & REL.
        405181030TOBACCO GROWER (AGRIC.)        CROP., ANIMAL FARM., & REL.
        405885010PEANUT-PICKER OPERATOR (AGRIC.TENDING
        405887010FARM HAND, HOPS (AGRIC.)       HANDLING
        405887014FARM HAND, TOBACCO (AGRIC.)    HANDLING
        405887018HARVEST HAND, BROOMCORN (AGRICHANDLING
        405887022HARVEST HAND, PEANUT (AGRIC.) HANDLING
        405887026HARVEST HAND, SUGARCANE (AGRICHANDLING
        406181014MUSHROOM GROWER (AGRIC.)       CROP., ANIMAL FARM., & REL.
        406181018SEED GROWER (AGRIC.)           CROP., ANIMAL FARM., & REL.
        409137010PICKING-CREW FOREMAN (AGRIC.) SUPER. WK. (FARM., MFG. ETC
        429885010LABORER, SEED CORN (AGRIC.)    TENDING
        465887018LABORER, ORCHARD FUMIGATION    HANDLING


HEGIS:  5402      TITLE:  SUPPLIES AND SERVICES
 USOE:  01020000  TITLE:  AGRICULTURAL SUPPLIES/SERVICES
        049384010BIOLOGICAL AID (AGRIC.)        TECH. WK., SCI. & REL. WK.
        096128014COUNTY AGRICULTURAL AGENT (GOVVOC. ED.
        180168014ARTIFICIAL-BREEDING DISTRIBUTOMANAG. WK.
        187168018DIRECTOR, AGRICULTURAL LABOR   MANAG. WK.
        421384010AGRICULTURAL AID (AGRIC.)      TECH. WK., SCI. & REL. FIEL
        469158010HARVEST CONTRACTOR (AGRIC.)    PURCH. & SALES WK.


HEGIS:  5402      TITLE:  ORNAMENTAL HORTICULTURE
 USOE:  01050000  TITLE:  ORNAMENTAL HORTICULTURE (PRODUCTION, PROCESSING, MARKETING, AN
        NO DOT ENTRY


HEGIS:  5403      TITLE:  FORESTRY
 USOE:  01070000  TITLE:  FORESTRY (PRODUCTION, PROCESSING, MANAGEMENT, MARKETING, AND S
        NO DOT ENTRY
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HEGIS: 5403 TITLE: COMMERCIAL FISHERY
USOE: 17080000 TITLE: COMMERCIAL FISHERY OCCUPATIONS

197133010	CAPTAIN, FISHING VESSEL (FISH.	SUPER. WK. (FARM., MFG. ETC
197133018	MATE, FISHING VESSEL (FISH)	SUPER. WK. (FARM., MFG. ETC
431782010	CLAM-DREDGE OPERATOR (FISH.)	OPERATING-CONTROLLING
431883010	STAKE BOATMAN (FISH.)	DRIVING-OPERATING
431884026	FISHERMAN, NET (FISH.)	MANIPULATING
431884030	FISHERMAN, POT (FISH.)	MANIPULATING
431884050	FISHERMAN, TERRAPIN (FISH)	MANIPULATING
431884062	FISHERMAN, WEIR (FISH.)	MANIPULATING
431884066	STRIKER (FISH.)	MANIPULATING
431887010	LABORER, WHARF (FISH.)	HANDLING
432884010	FISHERMAN, LINE (FISH.)	MANIPULATING
433884010	FISHERMAN, ABALONE (FISH.)	MANIPULATING
439687010	CLAM DREDGEMAN (FISH.)	SORT., INSPECT., & REL. WK.
439687014	CRAB INSPECTOR (FISH.)	SORT., INSPECT., & REL. WK.
439884014	NET MAN (FISH.)	MANIPULATING
525884030	FISH CLEANER (CAN. & PRESERV.;	MANIPULATING
589687014	GRADER (CAN & PRESERV.)	SORT., INSPECT., & REL. WK.
922985034	FISH BAILER (FISH.)	TENDING

HEGIS: 5404 TITLE: FOOD SERVICES AND MANAGEMENT
USOE: 09020300 TITLE: FOOD MANAGEMENT, PRODUCTION, AND SERVICES

187168014	CATERER (PER. SER.)	MANAG. WK.
187168038	DIRECTOR, SCHOOL LUNCH PROGRAM	MANAG. WK.
187168066	MANAGER, CAFETERIA OR LUNCHROO	MANAG. WK.
199281022	TESTER, FOOD PRODUCTS (GRAIN	MAT. ANALYSIS & REL WK.
297258010	PLANT HOSTESS (BAK. PROD.)	DEMON. & SALES. WK.
305281010	COOK (DOM. SER.)	COOKING & REL. WK.
310138010	KITCHEN SUPERVISOR (HOTEL &	SUPER. WK. (SER. & REL.)
313138014	COOK, HEAD, SCHOOL CAFETERIA	SUPER. WK. (SER. & REL.)
319138010	FOOD-SERVICE SUPERVISOR (HOTEL	SUPER. WK. (SER. & REL.)
319874010	CATERER HELPER (PER. SER.)	MISC. CUSTOMER SERV. WK.

HEGIS: 5404 TITLE: FOODS AND NUTRITION
USOE: 09010700 TITLE: FOODS AND NUTRITION
NO DOT ENTRY

HEGIS: 5404 TITLE: FOOD SERVICE SUPERVISOR (HEALTH)
USOE: 07090800 TITLE: FOOD SERVICE SUPERVISOR
NO DOT ENTRY

HEGIS: 5404 TITLE: QUANTITY FOOD
USOE: 17290000 TITLE: QUANTITY FOOD OCCUPATIONS

187168022	DIRECTOR, FOOD AND BEVERAGE (H	MANAG. WK.
319138014	MANAGER, FLIGHT KITCHEN (HOTEL	SUPER. WK. (SER. & REL.)
319138018	MANAGER, INDUSTRIAL CAFETERIA	SUPER. WK. (SER. & REL.)

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HEGIS:  5404      TITLE:  UPHOLSTERING
 USOE:  17350000  TITLE:  UPHOLSTERING
        739381018CUTTER, FABRICS AND MATERIALS CRAFTS & REL. WK.
        780131010FOREMAN, CUTTING-AND-SEWING DESUPER. WK. (FARM., MFG. ETC
        780137010FOREMAN, MATTRESS AND BOX SPRISUPER. WK. (FARM., MFG. ETC
        780137014FOREMAN, UPHOLSTERY DEPARTMENTSUPER. WK. (FARM., MFG. ETC
        780381010AUTOMOBILE UPHOLSTERER (AUTO. CRAFTS & REL. WK.
        780381014AUTOMOBILE-UPHOLSTERER APPRENTCRAFTS & REL. WK.
        780381018FURNITURE UPHOLSTERER (ANY INDCRAFTS & REL. WK.
        780381022FURNITURE-UPHOLSTERER APPRENTICRAFTS & REL. WK.
        780381030UPHOLSTERER (R. R. TRANS.)     CRAFTS & REL. WK.
        780587010SORTER, UPHOLSTERY PARTS (FURNSORT., INSPECT., & REL. WK.
        780684010TRIMMING ASSEMBLER (FURN.)     SORT., INSPECT., & REL. WK.
        780687010COVER INSPECTOR (FURN.)        SORT., INSPECT., & REL. WK.
        780687014INSPECTOR (MATT. & BEDSPRING) SORT., INSPECT., & REL. WK.
        780687018MATTRESS INSPECTOR (RUBBER GOOSORT., INSPECT., & REL. WK.
        780884010AUTOMOBILE-SEAT-COVER-AND-CONVMANIPULATING
        780884014BACK PADDER (FURN.)            MANIPULATING
        780884018BAND-TOP MAKER (MATT. & BEDSPRMANIPULATING
        780884022BOX-SPRING MAKER (MATT. & BEDSMANIPULATING
        780884026BOX-SPRING TOPPER (MATT. & BEDMANIPULATING
        780884038CHAIR UPHOLSTERER (FURN.)      MANIPULATING
        780884042COTTON DISPATCHER (FURN.)      MANIPULATING
        780884050CUSHION BUILDER (AUTO. MFG.)   MANIPULATING
        780884054CUSHION BUILDER (FURN.)        MANIPULATING
        780884058CUSHION MAKER (FURN.) I        MANIPULATING
        780884062CUSHION MAN (FURN.)            MANIPULATING
        780884066EDGE ROLLER (FURN.)            MANIPULATING
        780884070FABRICATOR, FOAM RUBBER (MATT.MANIPULATING
        780884074MATTRESS FINISHER (MATT. & BEDMANIPULATING
        780884078MATTRESS MAKER (MATT. & BEDSPRMANIPULATING
        780884082MATTRESS-FILLING-MACHINE TENDEMANIPULATING
        780884086PADDER, CUSHION (FURN.)        MANIPULATING
        780884090PANEL COVERER, METAL FURNITUREMANIPULATING
        780884094PANEL MAKER (FURN.)            MANIPULATING
        780884098POCKETED-SPRING ASSEMBLER (MATMANIPULATING
        780884102RIMMER (MATT. & BEDSPRING)     MANIPULATING
        780884106SEWING-IN OPERATOR (MAT. & BEDMANIPULATING
        780884110SLIP-SEAT COVERER (FURN.)      MANIPULATING
        780884114SPRING ASSEMBLER (FURN.; MATT.MANIPULATING
        780884118SPRING CLIPPER (FURN.)         MANIPULATING
        780884122SPRINGER (FURN.)               MANIPULATING
        780884126STUFFING-MACHINE OPERATOR (AUTMANIPULATING
        780884130TESTER, CONVERTIBLE SOFA BEDSPMANIPULATING
        780884134TUFTER (MATT. & BEDSPRING)     MANIPULATING
        780884138UPHOLSTERER (FURN.) II         MANIPULATING
        780884142UPHOLSTERY CUTTER (FURN.; RET.MANIPULATING
        780884146UPHOLSTERY REPAIRMAN (FURN.)   MANIPULATING
        780884150UPHOLSTERY TRIMMER (FURN.)     MANIPULATING
        780884154WEBBING TACKER (FURN.)         MANIPULATING
        780884158WIRE-BORDER ASSEMBLER (FURN.; MANIPULATING
        780887010BORDER MEASURER AND CUTTER (MAHANDLING
        780887014CLIP-AND-TURN MAN (MATT. & BEDHANDLING
        780887018CUSHION CLEANER (FURN.)        HANDLING
        780887022FEATHER-CUTTING-MACHINE OPERATHANDLING
        780887026FEEDER (HOUSE FURN.)           HANDLING
        780887030FILLER (HOUSE FURN.) I         HANDLING
        780887034HASSOCK MAKER (HOUSE FURN.)    HANDLING
        780887038MATTRESS STRIPPER (MATT. & BEDHANDLING
        780887042MATTRESS-SPRING ENCASER (MATT.HANDLING
        780887046POCKETED-SPRING INSERTER (AUTOHANDLING
        780887050SPRING COVERER (FURN.)         HANDLING
        780887054STAPLER, HAND (MATT. & BEDSPRIHANDLING
        780887058STUFFER (HOUSE FURN.) I        HANDLING
        780887062TUFTER, HAND (MATT. & BEDSPRINHANDLING
        780887066UPHOLSTERER HELPER (ANY IND.)  HANDLING
        780887070UPHOLSTERY CLEANER (FURN.)     HANDLING
        780887030UPHOLSTERER (AIRCRAFT MFG.)    HANDLING
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HEGIS: 5405 TITLE: CLOTHING MANAGEMENT, PRODUCTION, SERVICES
USOE: 09020200 TITLE: CLOTHING MANAGEMENT, PRODUCTION, AND SERVICES
302987014LAUNDRESS (DOM. SER.) HANDLING
309878010CLOTHING MAINTENANCE SPECIALISMISC. PER. SER. (FOOD SER.
346381010WARDROBE-SPECIALTY WORKER (MO-CRAFTS & REL. WK.
346878010DRESSER (AMUSE. & REC.) MISC. PER. SER. (FOOD SER.
346878034WARDROBE MISTRESS (AMUSE. & REMISC. PER. SER. (FOOD SER.
346878030WARDROBE ATTENDANT (AMUSE. & MISC. PER. SER. (FOOD SER.
346878038WARDROBE-MISTRESS ASSISTANT MISC. PER. SER. (FOOD SER.
785361010DRESSMAKER (ANY IND.) COSTUM., TAILOR., & DRESSMA
785381018SEAMSTRESS (ANY IND.) CRAFTS & REL. WK.
785381022SEAMSTRESS, LINEN ROOM CRAFTS & REL. WK.
789687030GARMENT EXAMINER (GARMENT; RETSORT., INSPECT., & REL. WK.
789687034GARMENT INSPECTOR (GARMENT; KNSORT., INSPECT., & REL. WK.
969261010COSTUMER (MOTION PIC.; RADIO &COSTUM., TAILOR., & DRESSMA

HEGIS: 5405 TITLE: CLOTHING & TEXTILES
USOE: 09010300 TITLE: CLOTHING AND TEXTILES
NO DOT ENTRY

HEGIS: 5405 TITLE: FAMILY HEALTH
USOE: 09010500 TITLE: FAMILY HEALTH
NO DOT ENTRY

HEGIS: 5405 TITLE: HOME EQUIPMENT AND FURNISHING
USOE: 09020400 TITLE: HOME FURNISHINGS, EQUIPMENT, AND SERVICES
163168010HOME-LIGHTING-DEMONSTRATOR MANAG. WK.
278258010HOME SERVICE REPRESENTATIVE DEMON. & SALES. WK.
299258010HOME-LIGHTING ADVISER (LIGHT, DEMON. & SALES. WK.
780381026SLIPCOVER CUTTER (HOUSE FURN.)CRAFTS & REL. WK.
782884082SEWER, HAND (ANY IND.) DEMON. & SALES. WK.
787782086DRAPERY OPERATOR (RET. TR.) OPERATING-CONTROLLING
787782306SLIP-COVER SEAMSTRESS (HOUSE OPERATING-CONTROLLING

HEGIS: 5405 TITLE: INSTITUTIONAL & HOME MANAGEMENT & SPRT SRV
USOE: 04130000 TITLE: INSURANCE
166168034SPECIAL AGENT (INSURANCE) MANAG. WK.
168268022INSURANCE EXAMINER (GOV. SER.)INVESTIGAT., PROTECT. & REL
169168034ESTATE PLANNER (INSURANCE) CONSULT. & BUS. WK.
169188014UNDERWRITER (INSURANCE) ACCOUNT., AUDIT. & REL. WK.
169268018HOSPITAL-INSURANCE REPRESENTATINTERVIEW., INFO. GIV., & R
186118030MANAGER, INSURANCE (ANY IND.) ADMIN.
186168030MANAGER, INSURANCE OFFICE (INSMANAG. WK.
191268018INVESTIGATOR (INSURANCE) I INVESTIGAT., PROTECT. & REL
239368022PLACER (INSURANCE) INFO. GATHER., DISPENS. & R
241168010CLAIM ADJUSTER (INSURANCE) INVESTIGAT., PROTECT. & REL
249268010CLAIM EXAMINER (INSURANCE) II INVESTIGAT., PROTECT., & RE
250258010LIFE UNDERWRITER (INSURANCE) IDEMON. & SALES WK.
250258014SALESMAN, INSURANCE (INSURANCEDEMON. & SALES WK.

HEGIS: 5405 TITLE: HOUSING AND HOME FURNISHING
USOE: 09010900 TITLE: HOUSING AND HOME FURNISHINGS
NO DOT ENTRY

HEGIS: 5405 TITLE: CONSUMER EDUCATION
USOE: 09010400 TITLE: CONSUMER EDUCATION
NO DOT ENTRY

HEGIS: 5405 TITLE: HOME MANAGEMENT
USOE: 09010800 TITLE: HOME MANAGEMENT
NO DOT ENTRY

HEGIS: 5405 TITLE: CHILD DEVELOPMENT
USOE: 09010200 TITLE: CHILD DEVELOPMENT
NO DOT ENTRY

HEGIS: 5405 TITLE: CAPE AND GUIDANCE OF CHILDREN
USOE: 09020100 TITLE: CARE AND GUIDANCE OF CHILDREN
307878010NURSEMAID (DOM. SER.) CHILD & ADULT CARE
309878026FOSTER MOTHER (DOM. SER.) CHILD & ADULT CARE
355878018CHILD-CARE ATTENDANT, SCHOOL CHILD & ADULT CARE
359878014CHILD-CARE ATTENDANT (GOV. SERCHILD & ADULT CARE
359878022KINDERGARTNER (ANY IND.) CHILD & ADULT CARE
359878026CHILD-CARE ASSISTANT (ANY IND.CHILD & ADULT CARE

HEGIS: 5405 TITLE: HOMEMAKING (COMPREHENSIVE)
USOE: 09010100 TITLE: COMPREHENSIVE HOMEMAKING OR HOME ECONOMICS
NO DOT ENTRY

HEGIS: 5405 TITLE: FAMILY RELATIONS
USOE: 09010600 TITLE: FAMILY RELATIONS
NO DOT ENTRY

HEGIS: 5406 TITLE: MARITIME OCCUPATIONS
USOE: 16060400 TITLE: OCEANOGRAPHIC TECHNOLOGY (PHYSICAL, BIOLOGICAL, AND FISHERIES
NO DOT ENTRY

HEGIS: 5406 TITLE: MARITIME OCCUPATIONS
USOE: 17220000 TITLE: MARITIME OCCUPATIONS
623131010MACHINIST FOREMAN, OUTSIDE SUPER. WK. (FARM., MFG. ETC
623281014JUNIOR ENGINEER (WATER TRANS.)CRAFTS & REL. WK.
623281018MACHINIST APPRENTICE, MARINE CRAFTS & REL. WK.
623281022MACHINIST APPRENTICE, OUTSIDE CRAFTS & REL. WK.
623281026MACHINIST, MARINE ENGINE (SHIPCRAFTS & REL. WK.
623281030MACHINIST, OUTSIDE (SHIP & BOACRAFTS & REL. WK.
623281034MOTORBOAT MECHANIC (ANY IND.) CRAFTS & REL. WK.
623281038OUTBOARD-MOTOR MECHANIC (SHIP CRAFTS & REL. WK.
623381010GEAR MAN (WATER TRANS.) II CRAFTS & REL. WK.
623884010MOTORBOAT-MECHANIC HELPER MANIPULATING
623887010MACHINIST HELPER, OUTSIDE (SHIHANDLING

HEGIS: 5408 TITLE: ENVIRONMENTAL HEALTH ASSISTANT
USOE: 07070100 TITLE: ENVIRONMENTAL HEALTH ASSISTANT
NO DOT ENTRY

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HEGIS:  5408      TITLE:  SANITATION
 USOE:  16010602  TITLE:  SANITATION TECHNOLOGY
        025288010HYDROGRAPHER (WATERWORKS)      SURV., PROSP., & REL. WK.


HEGIS:  5408      TITLE:  SANITARIAN ASSISTANT
 USOE:  07070300  TITLE:  SANITARIAN ASSISTANT
        168287094SANITARY INSPECTOR (GOV. SER.)APPRAIS. & INVESTIGAT. WK.


HEGIS:  5500      TITLE:  APPLIED PSYCHOLOGY/SOCIAL STUDIES
        NO USOE ENTRY


HEGIS:  5501      TITLE:  PUBLIC SERVICE OCCUPATIONS (OTHER)
 USOE:  17289900  TITLE:  PUBLIC SERVICE OCCUPATIONS, OTHER
        168168010BUILDING INSPECTOR (GOV. SER.)INVESTIGAT., PROTECT., & RE
        168168026ELECTRICAL INSPECTOR (GOV. SERINVESTIGAT., PROTECT., & RE
        168168058MOTOR-TRANSPORTATION INSPECTORINVESTIGAT., PROTECT., & RE
        168168062PLUMBING INSPECTOR (GOV. SER.)INVESTIGAT., PROTECT., & RE
        168168082SAFETY INSPECTOR (GOV. SER.)  INVESTIGAT., PROTECT., & RE
        168168086SAFETY MAN (INSURANCE)        INVESTIGAT., PROTECT., & RE
        168168090TRANSPORTATION INSPECTOR (MOTOINVESTIGAT., PROTECT., & RE
        168187010FURNITURE-AND-BEDDING INSPECTOAPPRAIS. & INVESTIGAT. WK.
        168268010DINING-SERVICE INSPECTOR (R. RINVESTIGAT., PROTECT., & RE
        168268030LICENSE INSPECTOR (GOV. SER.) INVESTIGAT., PROTECT., & RE
        168268038SAFETY-AND-SANITARY INSPECTOR INVESTIGAT., PROTECT., & RE
        168284010SAFETY INSPECTOR (ANY IND.) I APPRAIS. & INVESTIGAT. WK.
        168287018BOILER INSPECTOR (PROFESS. & KAPPRAIS. & INVESTIGAT. WK.
        168287020BUILDING INSPECTOR (INSURANCE)APPRAIS. & INVESTIGAT. WK.
        168287022CHECK VIEWER (MINING & QUARRYIAPPRAIS. & INVESTIGAT. WK.
        168287066INTERIOR-WIRING INSPECTOR (CONAPPRAIS. & INVESTIGAT. WK.


HEGIS:  5503      TITLE:  PERSONNEL, TRAINING, AND RELATED
 USOE:  14060000  TITLE:  PERSONNEL, TRAINING, AND RELATED OCCUPATIONS
        NO DOT ENTRY


HEGIS:  5504      TITLE:  LIBRARY AND LEARNING RESOURCES
 USOE:  17289900  TITLE:  PUBLIC SERVICE OCCUPATIONS, OTHER
        168168010BUILDING INSPECTOR (GOV. SER.)INVESTIGAT., PROTECT., & RE
        168168026ELECTRICAL INSPECTOR (GOV. SERINVESTIGAT., PROTECT., & RE
        168168058MOTOR-TRANSPORTATION INSPECTORINVESTIGAT., PROTECT., & RE
        168168062PLUMBING INSPECTOR (GOV. SER.)INVESTIGAT., PROTECT., & RE
        168168082SAFETY INSPECTOR (GOV. SER.)  INVESTIGAT., PROTECT., & RE
        168168086SAFETY MAN (INSURANCE)        INVESTIGAT., PROTECT., & RE
        168168090TRANSPORTATION INSPECTOR (MOTOINVESTIGAT., PROTECT., & RE
        168187010FURNITURE-AND-BEDDING INSPECTOAPPRAIS. & INVESTIGAT. WK.
        168268010DINING-SERVICE INSPECTOR (R. RINVESTIGAT., PROTECT., & RE
        168268030LICENSE INSPECTOR (GOV. SER.) INVESTIGAT., PROTECT., & RE
        168268038SAFETY-AND-SANITARY INSPECTOR INVESTIGAT., PROTECT., & RE
        168284010SAFETY INSPECTOR (ANY IND.) I APPRAIS. & INVESTIGAT. WK.
        168287018BOILER INSPECTOR (PROFESS. & KAPPRAIS. & INVESTIGAT. WK.
        168287020BUILDING INSPECTOR (INSURANCE)APPRAIS. & INVESTIGAT. WK.
        168287022CHECK VIEWER (MINING & QUARRYIAPPRAIS. & INVESTIGAT. WK.
        168287066INTERIOR-WIRING INSPECTOR (CONAPPRAIS. & INVESTIGAT. WK.
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HEGIS:  5505      TITLE:  LAW ENFORCEMENT
 USOE:  17280200  TITLE:  LAW ENFORCEMENT TRAINING
        375118010POLICE CHIEF (GOV. SER.)          ADMIN.
        375138010DESK OFFICER (GOV. SER.)          SUPER. WK. (CLERICAL & REL.
        375138014DESK OFFICER, CHIEF (GOV. SER.SUPER. WK. (CLERICAL & REL.
        375168010COMMANDING OFFICER, HOMICIDE  MANAG. WK.
        375168014COMMANDING OFFICER, INVESTIGATMANAG. WK.
        375168018COMMANDING OFFICER, HARBOR-POLMANAG. WK.
        375168022COMMANDING OFFICER, MOTOR EQUIMANAG. WK.
        375168026COMMANDING OFFICER, MOTORCYCLEMANAG. WK.
        375168030DETECTIVE CHIEF (GOV. SER.)   MANAG. WK.
        375168034HARBOR MASTER (GOV. SER.)         ADMIN.
        375168038MATRON, HEAD (GOV. SER.)          INVESTIGAT., PROTEC., & REL
        375168042PILOT, HIGHWAY PATROL (GOV. SEINVESTIGAT., PROTEC., & REL
        375168046POLICE CAPTAIN, PRECINCT (GOV.MANAG. WK.
        375168050POLICE LIEUTENANT, PRECINCT (GINVESTIGAT., PROTEC., & REL
        375168054POLICE SERGEANT, PRECINCT (GOVINVESTIGAT., PROTEC., & REL
        375168062TRAFFIC LIEUTENANT (GOV. SER.)INVESTIGAT., PROTEC., & REL
        375168066TRAFFIC SERGEANT (GOV. SER.)  INVESTIGAT., PROTEC., & REL
        375228010POLICE-ACADEMY INSTRUCTOR (GOVINDUST. TRAINING
        375268010ACCIDENT-PREVENTION-SQUAD PATRINVESTIGAT., PROTEC., & REL
        375268014DETECTIVE (GOV. SER.)             INVESTIGAT., PROTEC., & REL
        375268018HOMICIDE-SQUAD PATROLMAN (GOV.INVESTIGAT., PROTEC., & REL
        375268022INVESTIGATOR, NARCOTICS (GOV. INVESTIGAT., PROTEC., & REL
        375268026PATROL CONDUCTOR (GOV. SER.)  INVESTIGAT., PROTEC., & REL
        375268030PATROLMAN (GOV. SER.)             INVESTIGAT., PROTEC., & REL
        375268034POLICE INSPECTOR (GOV. SER.) IINVESTIGAT., PROTEC., & REL
        375268038POLICE INSPECTOR (GOV. SER.) IINVESTIGAT., PROTEC., & REL
        375268042POLICEWOMAN (GOV. SER.)           INVESTIGAT., PROTEC., & REL
        375268046STATE-HIGHWAY PATROLMAN (GOV. INVESTIGAT., PROTEC., & REL
        375268050VICE-SQUAD PATROLMAN (GOV. SERINVESTIGAT., PROTEC., & REL
        375388010FINGERPRINT CLASSIFIER (GOV. SCLASSIF., FILING. & REL. WK
        375588010PARKING ENFORCEMENT OFFICER (GROUTINE CHECK. & RECORD
        375868010BORDER PATROLMAN (GOV. SER.)  PROTECT. & REL. WK.
        375868014MATRON (GOV. SER.) II             PROTECT. & REL. WK.
        376268010DETECTIVE (BUS. SER.)             INVESTIGAT., PROTECT., & RE
        376268014SHOPPING INVESTIGATOR (BUS. SEINVESTIGAT., PROTECT., & RE
        376868010ALARM INVESTIGATOR (ANY IND.) PROTECT. & REL. WK.
        376868014DETECTIVE (ANY IND.) I            PROTECT. & REL. WK.
        376868018DETECTIVE (ANY IND.) II           PROTECT. & REL. WK.
        376868022FLOORMAN (AMUSE. & REC.) I        PROTECT. & REL. WK.
        376868026HOUSE OFFICER (HOTEL & REST.) PROTECT. & REL. WK.
        376868030INVESTIGATOR (LIGHT, HEAT, & PPROTECT. & REL. WK.
        376868034PATROLMAN (R. R. TRANS.)          PROTECT. & REL. WK.
        376868038STORE DETECTIVE (RET. TR.)        PROTECT. & REL. WK.
        376868042UNDERCOVER OPERATOR (RET. TR.)PROTECT. & REL. WK.
        377868010BAILIFF (GOV. SER.)               PROTECT. & REL. WK.
        377868014SHERIFF, DEPUTY (GOV. SER.)       PROTECT. & REL. WK.
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HEGIS: 5506 TITLE: RECREATION AND TOURISM
USOE: 04180000 TITLE: RECREATION AND TOURISM

143358010	CAMERA GIRL (AMUSE. & REC.)	SELLING & REL. WK.
165168010	DIRECTOR, TOURIST (GOV. SER.)	MANAG. WK.
187168098	MANAGER, GOLF CLUB (AMUSE. &	MANAG. WK.
187168146	MANAGER, THEATER (AMUSE. & REC	MANAG. WK.
187168030	DIRECTOR, HOBBY SHOP (AMUSE. &	MANAG. WK.
191118010	BOOKING AGENT (AMUSE. & REC.)	CONTR. NEGOT. & REL. WK.
191118014	BUSINESS AGENT (AMUSE. & REC.)	CONTR. NEGOT. & REL. WK.
191168010	ADVANCE MAN (AMUSE. & REC.)	CONTR. NEGOT. & REL. WK.
195168026	DIRECTOR, RECREATION CENTER (P	MANAG. WK.
211468062	TICKET SELLER (CLERICAL)	CASH. (THEATER, REST. & REL
237168010	TRAVEL COUNSELOR (NONPROFIT OR	SCHED., EXPED. & REL. WK.
285358010	SALESPERSON, PHOTOGRAPHIC EQUI	DEMON. & SALES WK.
286358010	SALESMAN, AMUSEMENT AND SPORTI	DEMON. & SALES WK.
286358014	SALESMAN, HOBBIES AND CRAFTS	DEMON. & SALES WK.
286358018	SALESPERSON, SPORTING GOODS (R	DEMON. & SALES WK.
287358010	SALESMAN, MUSICAL INSTRUMENTS	DEMON. & SALES WK.
287358014	SALESMAN, PIANO AND ORGAN (RET	DEMON. & SALES WK.
287358022	SALESPERSON, SHEET MUSIC (RET.	DEMON. & SALES WK.
289358030	SALESMAN, NOVELTIES (WHOLE. TR	DEMON. & SALES WK.
289358034	SALESMAN, PUBLICATIONS (WHOLE.	DEMON. & SALES WK.
289358042	SALESPERSON, BOOKS (RET. TR.)	DEMON. & SALES WK.
289358050	SALESPERSON, PETS AND PET SUP	DEMON. & SALES WK.
289358054	SALESPERSON, STAMPS OR COINS	DEMON. & SALES WK.
293358022	SALESMAN, CLUB MEMBERSHIP (ANY	DEMON. & SALES WK.
340368010	DESKMAN, BOWLING FLOOR (AMUSE.	FACIL., SER., & EXPED. WK.
341368010	RECREATION-FACILITY ATTENDANT	FACIL., SER., & EXPED. WK.
352168010	DIRECTOR, RECREATION (HOTEL	MANAG. WK.

HEGIS: 5507 TITLE: FIREFIGHTING
USOE: 17280100 TITLE: FIREMAN TRAINING

373118010	FIRE CHIEF (GOV. SER.)	ADMIN.
373168010	BATTALION CHIEF (GOV. SER.)	ADMIN.
373168014	CAPTAIN, FIRE-PREVENTION BUREA	INVESTIGAT., PROTECT., & RE
373168018	FIRE CAPTAIN (GOV. SER.)	INVESTIGAT., PROTECT., & RE
373168022	FIRE CHIEF (SAWMILL)	INVESTIGAT., PROTECT., & RE
373168026	FIRE INSPECTOR (GOV. SER.)	INVESTIGAT., PROTECT., & RE
373168030	FIRE MARSHAL (ANY IND.)	INVESTIGAT., PROTECT., & RE
373884010	FIRE FIGHTER, CRASH (AIR TRANS	MANIPULATING
373884014	FIRE FIGHTER (ANY IND.)	MANIPULATING
379387010	FIRE INSPECTOR (ANY IND.)	INSPECT. & STOCK CHECK.

APPENDIX E

A Pilot Sample Printout

of the Program Data Monitoring System

*** MARYLAND COMMUNITY COLLEGE PROGRAMS ***

COLLEGE: CATONSVILLE COMM COL INSTITUTION PROGRAM TITLE: RECREATIONAL LEADERSHIP DATE IMPLEMENTED: SEP 1973

HEGIS CODE: 5506 HEGIS DISCIPLINE: RECR + SOC WORK RELATED TECH USOE CODE: ######

SIMILAR PROGRAMS IN MARYLAND COMMUNITY COLLEGES:

COLLEGE NAME	PROGRAM TITLE	SEP 1975 ENROLLMENT FT	SEP 1975 ENROLLMENT PT	JUN 1976 AWARDS AA	JUN 1976 AWARDS CERT
ALLEGANY COMM COL	RECREATIONAL LEADERSHIP	22	11	0	0

STUDENT PARTICIPATION AND FOLLOW-UP SUMMARY

	1974	1975	1976	1977	1978
ENROLLMENT					
FT					
PROJECTED	20	35	35	35	35
ACTUAL	N/A	48	46		
PT					
PROJECTED	10	12	12	12	12
ACTUAL	N/A	13	13		
AWARDS					
AA					
PROJECTED	0	15	15	15	15
ACTUAL	N/A	17	17		
CERT					
PROJECTED	0	0	0	0	0
ACTUAL	N/A	0	0		
PROJECTED EMPLOYMENT OPPORTUNITIES					
LOCAL	N/A	8	8	8	8
REGIONAL	N/A	N/A	N/A	N/A	N/A
STATE	N/A	2	2	2	2
ACTUAL PLACEMENT IN PROGRAM RELATED JOBS *					
LOCAL	N/A	N/A	N/A		
REGIONAL	N/A	N/A	N/A		
STATE	N/A	N/A	N/A		

	BEGINNING	AFTER 2 YEARS	AFTER 5 YEARS
SALARY HISTORY *			
PROJECTED	$6,200.00	$6,450.00	$6,800.00
ACTUAL	N/A	N/A	N/A

* FROM SBCC STUDENT FOLLOW-UP STUDY

COST SUMMARY

	$
AVERAGE COLLEGE COST PER FTE	N/A
ACTUAL PROGRAM COST PER FTE **	N/A
ESTIMATED CAPITAL COST TO IMPLEMENT PROGRAM	N/A

** BASED ON 20 FTE'S IN PROGRAM

SAMPLE

APPENDIX F

Pilot Implementation

of Career Program Evaluation Model

MARYL STATE BOARD FOR COMMUNITY COL ES

CONTRACT PROPOSAL

PROJECT TITLE: Pilot Implementation of Career Program Evaluation Model

PROJECT DESCRIPTION:* See Attached

CONTRACT PERIOD April March 1, 1975 - Nov. Dec. 30, 1975 TOTAL AMOUNT OF CONTRACT: $930.60

SOURCE OF FUNDS: Maryland State Board for Community Colleges

PROPOSED BUDGET BREAKDOWN:* See attached

TERMINATION CLAUSE(S):

The responsible agency will maintain and retain all records and documents relating to the performance of this contract for a period of three years after completion of this project and will make such records available for audit and inspection by the State Board for Community Colleges. A final summary of this project will also be made available to the State Board for Community Colleges. The responsible agency will also comply with all State laws and procedures as appropriate, e.g., withholding taxes and Social Security. Submit this form in duplicate to the State Board.

Submitted by: Kenneth W. Oosting President Kenneth W. Oosting
Authorized Representative Title Signature

Harford Community College Feb. 21, 1975
Community College Date

Approved: Brent M. Johnson, Assistant Executive Director
SBCC Authorized Representative Title Signature Date

Disapproved:
SBCC Authorized Representative Title Signature Date

* Use additional sheets if necessary.

Harford Community College proposes to serve as a pilot institution in implementing the Career Program Evaluation Model. In keeping with the model, a Level I evaluation will be conducted using historic records and supplementing this information by acquiring additional data where necessary. The data to be collected will include the following elements:

enrollments
completions
completions in the field of training
early leavers with marketable skills
salary levels
community response

The results of this process will serve as the input for determining the appropriateness of embarking on the second stage of the model, Level II.

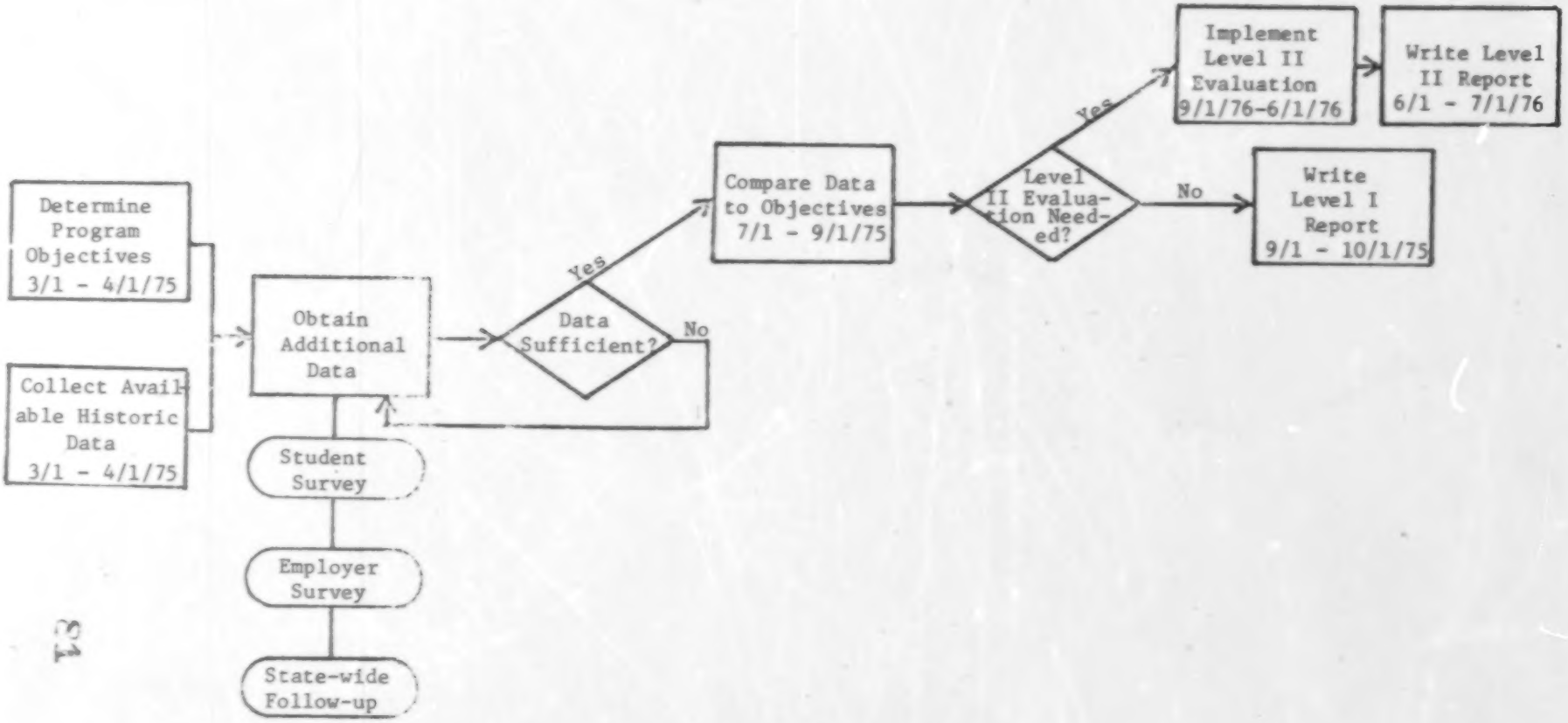
The College will apply the concepts and methodology of the evaluation model to career programs in automotive engineering, business data processing, electronics, interior design, nursing, science lab technology, and secretarial.

Harford Community College will, upon assessment of the results of the Level I evaluation, conduct Level II evaluations on programs which warrant this action. The College will bear the costs associated with any Level II evaluations conducted.

The flow chart which follows provides an overview of the process to be followed in the project. The funding requested will support the Level I evaluation from the period March 1, 1975 through October 1, 1975. A report of these activities will be submitted at the end of this period. In areas where a Level II evaluation is deemed appropriate by the project leader, such evaluations will be implemented and a report of these activities submitted to the State Board for Community Colleges. While a July 1, 1976 termination date is given for this aspect of the project, this date represents a maximum time period, since the number of programs to be so evaluated and the extent of these evaluations will not be known until completion of the Level I evaluation.

Beyond the benefits to these programs to be accrued through the implementation of the evaluation model, it is expected that this process will serve as a learning experience for the College which will facilitate the continued application of this evaluation model on the career programs at Harford Community College, and enhance similar applications by other community colleges in Maryland. A critical report describing the operation of the model at Harford Community College will be distributed to the staff of the State Board for Community Colleges and to the chairman of the committee that developed the evaluation model. The intent of this report will be to benefit the community colleges of Maryland in their use of this model.

The budget which is attached reflects the estimated financial implications associated with undertaking a Level I evaluation. Applying the evaluation model ex post facto will require more time and expense that would normally be the case if the model were implemented as it was designed as an on-going, yearly process. The major expense in this project will be the manpower needed for obtaining of archival information regarding students who have been involved in the curriculum and obtaining new information from these students regarding their current status. The remaining expenses are incidental to this main activity. As stated above, the College will assume the costs of any Level II evaluations conducted as its share in this project.


Determine Program Objectives 3/1 - 4/1/75
Collect Available Historic Data 3/1 - 4/1/75
Obtain Additional Data
Data Sufficient?
Yes
No
Compare Data to Objectives 7/1 - 9/1/75
Level II Evaluation Needed?
Yes
No
Implement Level II Evaluation 9/1/76-6/1/76
Write Level II Report 6/1 - 7/1/76
Write Level I Report 9/1 - 10/1/75
Student Survey
Employer Survey
State-wide Follow-up

PROPOSED BUDGET

			Cost
01 Salary & Wages			
Coordinator of Institutional Research	- 40 man/hours	@ $8.25	$330.00
Secretary to Coordinator of Institutional Research	- 40 man/hours	@ $2.75	150.00
Assistant Dean for Curriculum	- 15 man/hours	@ $9.75	146.25
Secretary to Assistant Dean for Curriculum	- 20 man/hours	@ $3.60	72.00
Programmer	- 7 man/hours	@ $6.60	46.20
02 Technical and Special Fees			
Computer time	- 2 hours		80.00
03 Communication			
Postage			25.00
04 Travel			
Consultant and related travel		@ 12¢ mile	35.00
09 Supplies and Materials			
Data Processing Supplies			10.00
Duplication and paper supplies			10.00
13 Fixed Charges			
Indirect costs at 2.9% of total			26.25
	TOTAL		$930.60

APPENDIX G

Comprehensive Career Information Systems

Committee Meetings Minutes

MAILING ADDRESS
P O BOX 8717
FRIENDSHIP INT'L AIRPORT
BALTIMORE, MARYLAND 21240

MARYLAND STATE DEPARTMENT OF EDUCATION
INTERNATIONAL TOWER BUILDING
6510 ELKRIDGE LANDING ROAD
LINTHICUM HEIGHTS, MARYLAND

DATE June 19, 1975

TO: Members of State Steering Committee on Career Information Systems

FROM: James S. Smith, Specialist in Postsecondary Education

SUBJECT: Summary of Meeting - June 18, 1975

On June 18, the committee met with JoAnn Harris-Bowlsbey and staff for a review of the Discover system. We were very impressed with the potential of this system for a number of reasons. Chief among these reasons could be its flexibility and built in capability for user adaptation to existing IBM model 370 systems. There is also flexibility for the user within the modules for change to meet local needs.

Project Discover plans call for introduction and field testing of the grades 7-12 guidance portion of the system in September, 1976. The administrative and guidance support portion of the system will be available in September, 1977. Work will continue toward development of the postsecondary adult segments in early 1978.

The committee agreed to make a review of GIS II, Time Share Corporation, Connecticut its next objective. Because Chuck Morrissey and staff will be in Maryland during workshop activities for public school guidance counselors this summer, contact will be made to determine the feasibility of this committee meeting with him during the summer. A prototype of GIS II is in place in Connecticut.

Leadership of this committee now rests with Dr. Steve Millman, at the Maryland State Board for Community Colleges. The success of the committee's work leading to recommendations rests with the involvement and contributions of each member. Our commitment to the original purpose to recommend procedures to the State for a career information system or systems that will strengthen and support Career Education for all persons from grade school on remains firm.

JSS:rf

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LINTHICUM HEIGHTS, MARYLAND

DATE May 7, 1975

TO Members of State Steering Committee on Career Information Systems

FROM James S. Smith

SUBJECT Committee Visit to Educational Testing Service on May 2, 1975

Committee members who participated were: Dr. Atlee C. Kepler, Mr. Edward C. Kuhl, Jr., Dr. Stephen D. Millman, Ms. Virginia Rellihan, Mr. Talmadge Sexton, Mr. Jesse L. Starkey, and Mr. James S. Smith.

ETS staff members were Drs. Martin Katz and Art Kroll.

This report will largely avoid mention of data and facts about SIGI that can be found in the green brochure, A Computer-based System of Interactive Guidance and Information. SIGI was experimented with by all committee members for about half of the time that we spent at ETS. A two terminal system operating off a Digital Equipment Corporation's PDP-11 processing unit was available with a script similar to that referred to in the brochure.

During discussion periods with Art Kroll and Martin Katz several significant facts became apparent which the committee should hold on to as we continue our examination of other systems. These may include more than the following since this summary is being prepared with too few notes:

1. SIGI is really designed for community college students. It will accommodate the 12th grade high school student who desires more education. SIGI is primarily a system to assist students in the decision making process. It is not information oriented as a primary objective like the CIVIS.

2. The present SIGI script includes 140 occupational (job) categories with a uniform distribution across the levels requiring baccalaureate and less than baccalaureate preparations. This occupational list is to be expanded.

3. The present SIGI script is written at an 8th grade reading level.

4. It is recommended that students spend no more than about 45 minutes at one time at the equipment console. This means several sessions will be required with an average of 4 hours per student the ultimate requirement.

5. The system is designed for a single institutional use with the consortium configuration possible to include terminals in remote locations such as feeder high schools.

6. The hardware is clearly prescribed by ETS for best use of SIGI system. Through experimentation and testing ETS has determined that a mini-computer designed for time sharing and primarily dedicated to SIGI works best. Such a computer is deemed less expensive than the process of modifying existing multi-purpose computer frames such as an IBM 370.

7. ETS does not supply the hardware.

8. ETS will make modifications to SIGI if it can respond to a specification of needs from a user. It will not authorize the SIGI system to be coupled with other systems or sub-systems.

9. ETS encourages the use of SIGI on either statewide, regional, or college basis. It will entertain specifications for design and application of SIGI in these modes.

10. ETS staff, especially Art Kroll, is knowledgeable and sympathetic to the needs of Maryland and the assignment of the committee. The impression here is that they assumed that we had already established an objective to investigate systems that would serve either the entire State or at least regional areas of the State.

The ETS staff encouraged our return to Princeton to spend more time with the SIGI system as our committee work developed.

In addition to the SIGI lease cost figures included in the folder received by ETS visit participants, there are available cost data in computer printout form, dependent upon variables prescribed by committee members. A copy is attached.

For example an analysis of costs for a 4 terminal system including capital costs, maintenance, and terminal connect per month, would be as follows:

Central processor	$61,820
Central processor maintenance	497
Terminal monthly maintenance	44
SIGI license fee (based upon 5000 enrollment)	11,000

The next meeting of the steering committee will be planned for sometime in June. It will be our task to continue our examination of the various systems available. These could include PLATO, DISCOVER, OIAS (Oregon), VICS (Philadelphia), and TIME SHARE. The details of the next meeting will reach you soon.

JSS:rf
Enclosure

MAILING ADDRESS
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BALTIMORE, MARYLAND 21240

MARYLAND STATE DEPARTMENT OF EDUCATION
INTERNATIONAL TOWER BUILDING
6510 ELKRIDGE LANDING ROAD
LINTHICUM HEIGHTS, MARYLAND

DATE March 5, 1975

TO: Members of the Steering Committee on Comprehensive Career Information Systems

FROM: James S. Smith, Specialist in Postsecondary Education

SUBJECT: Summary of Meeting - February 28, 1975

On the attachment to this summary of the meeting of February 28, 1975 are the names of committee and participants. The work of the steering committee received valuable impetus from the contribution of these persons representing nine different schools, colleges, or agencies.

The morning session commenced with valuable opening remarks by Dr. O'Connell and Mr. James Reid. Both emphasized the need for comprehensive manpower data and information for both the program and student planning processes. Comprehensive planning for all people who are recipients of education is necessary so that the State can truly focus on priorities for human and fiscal resources. There is a demonstrated need for occupational information and career training. Increasing numbers of persons are availing themselves of such educational opportunities with the community colleges now reporting over 40% of enrollments in occupational programs. The committee should examine the total program of information, data and decision making and optional directions and make recommendations. Should the State or a region pursue a computerized system? If so, what system? What are the communication system options?

Since articulation between education levels is so important, how can the committee's recommendations lead to further improvement?

Niel Carey reviewed several of the exemplary projects that have supported information systems development and installation. The use of a computerized system is a tool that provides both student motivation and service to the institution as it develops total guidance, counseling, placement, and follow-up services.

Ed Kuhl emphasized the need for regional information which will help force regional planning. Also the need for abstract occupational information along with actual job information is important.

Joel Matz feels that the State doesn't have sufficient planning information but an interagency group is making progress toward good data including both occupational needs and the educational supply.

Steve Millman related possible actions that could include exporting CVIS and added elements such as the University of Maryland transfer-information to other regions. He believes we should find out all we can about systems and then decide which way to go.

The common thread weaving through all the morning discussion was the agreement that much should be done to make available resources both human and material so students can and do make realistic occupational/educational decisions. In this writer's opinion many programs and projects indicate that it can be done on a statewide comprehensive basis with the collective support of employment, manpower planning and educational agencies.

The first item on the afternoon session agenda was a complete description of CVIS (now referred to as SMIS, a modified CVIS). Representing Charles County Community College and the cooperating counties of Southern Maryland, Tom Sexton reviewed the development and operation of the multi-county system. A highly commendable slide-tape media presentation was used by Tom to assist in the review. It was brought to our attention that an evaluation of the project is being handled by staff from Educational Testing Service.

Since the primary purpose of the initial meeting of the Steering Committee on Comprehensive Career Information Systems was to set goals and directions for its operation, a summary of these will conclude this report. Goals agreed upon consist of the following, unordered chronoligically:

1. Examine total program requirements for information and the options for delivery.

2. Explore other (than CVIS) information systems and possible modifications for CVIS.

3. Explore State-wide and regional network possibilities.

4. Cooperate in any way possible in the development of employment needs data that is compatible with information system.

5. Try to arrive at answers to such questions as - what system, if any, should be recommended?
   Where does sufficient hardware exist in the State?
   How can information about State communication systems be obtained?

6. Have a report with recommendations regarding comprehensive information systems in the hands of the State Board for Community Colleges and Division of Vocational-Technical Education by June 30, 1976.

The next meeting will occur in April 1975. To be planned for that meeting is a visit to Princeton, N.J. and ETS to look at SIGI (System of Interactive Guidance and Information) in operation. Details will be forwarded so you can make plans.

Future information gathering meetings will be concerned with other systems such as Discovery and newer Time-Share Co. developments.

LIST OF PARTICIPANTS

Mr. E. Niel Carey - Specialist , Vocational Guidance
Maryland State Department of Education

Dr. Atlee C. Kepler - President
Hagerstown Junior College

Mr. Edward C. Kuhl, Jr. - Dean of Student Services
Harford Community College

Mr. Joel Matz - Executive Director
State Manpower Planning Council

Dr. Stephen D. Millman - Specialist in Student Services
Maryland State Board for Community Colleges

Dr. Alfred C. O'Connell - Executive Director
Maryland State Board for Community Colleges

Mr. James L. Reid - Assistant State Superintendent in Vocational-Technical
Education, Maryland State Department of Education

Ms. Virginia Rellihan - Counselor
Chopticon Senior High School

Mr. Talmadge Sexton - Associate Dean for Administration
Charles County Community College

Mr. James S. Smith - Specialist, Postsecondary Education
Maryland State Department of Education

Mr. Jesse L. Starkey - Superintendent of Schools
Charles County Public Schools

UNIVERSITY OF CALIF.
LOS ANGELES
OCT 30 1975
CLEARINGHOUSE FOR
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INFORMATION